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CALIFORNIA MEDICINE

Index to Volume 66, January-June, 1947

KEY TO ABBREVIATIONS USED IN INDEX

(Or.)—Original Article.
(Ed.)—Editorial.
(MP)—Medical Progress.
(CPC)—Clinical-Pathological Conference.
(CC)—Clinical Conference.
(CMA)—California Medical Association Section.
(I)—Information.
(LE)—Letters to the Editor.
(BR)—Book Reviews.
(MJ)—Medical Jurisprudence.

AUTHOR INDEX

A

Aring, Charles D., *San Francisco*....38, 84

B

Baker, Frances, *San Francisco*....295
Barnes, Roger W., *Los Angeles*....347
Bell, H. Glenn, *San Francisco*....292
Boyes, Joseph H., *Los Angeles*....18
Bradley, Elizabeth, *San Francisco*....57
Brainerd, Henry, *San Francisco*....57
Brill, Joseph, *Inglewood*....238

C

Cheney, Garnett, *San Francisco*....280
Cline, John W., *San Francisco*....213
Cohen, Peter, *San Francisco*....30
Collen, Morris F., *Oakland*....62

D

Davis, Kenneth S., *Los Angeles*....117
Deamer, William C., *San Francisco*....289
Dodds, Donald C., *San Francisco*....125

E

Eliaser, Maurice, Jr., *San Francisco*....217
Ellwood, Walter W., *San Leandro*....287
Engleman, Ephraim P., *San Francisco*....227

F

Fields, Albert, *Los Angeles*....304
Fletcher, Harold A., *San Rafael*....331
Flynn, J. F., *Los Angeles*....306

G

Geiger, J. C., *San Francisco*....297
Geshelin, H., *Los Angeles*....358
Graham, Herbert W., *Oakland*....289

H

Harris, M. Coleman, *Beverly Hills*....354
Hartman, Milton M., *San Francisco*....242
Howard, Frederick S., *San Francisco*....352
Huddleston, O. Leonard, *Los Angeles*....25

J

Jones, John C., *Los Angeles*....341

K

Kirkpatrick, John E., *San Francisco*....15
Kocher, R. A., *Carmel*....27
Krebs, Ernest T., *San Francisco*....271

L

LeVan, Paul, *Los Angeles*....344
Lovejoy, John L., *Jacksonville*....302

M

MacBryde, Cyril M., *Los Angeles*....79
Manwaring, W. H., *Palo Alto*....52, 151
Mayer, Edward C., *San Francisco*....67
McClendon, S. J., *San Diego*....277
Mettier, Stacy R., *San Francisco*....295
Miller, Hyman, *Beverly Hills*....128
Mote, Clayton D., *San Francisco*....108
Mullen, Thomas F., *San Francisco*....107

N

Nagel, Gunther W., *San Francisco*....118
Neff, William, *San Francisco*....67
Newman, Ben A., *Los Angeles*....349
Nielsen, J. M., *Los Angeles*....338

O

O'Connor, Gerald B., *San Francisco*....11

P

Pack, George T., *New York*....120, 283
Parkinson, John, *London*....230
Perales, Maria de la Luz, *San Francisco*....67
Perzik, S. L., *Los Angeles*....283
Pratt, Donald R., *Menlo Park*....22
Purviance, Carlton C., *Vallejo*....302

R

Rantz, Lowell A., *San Francisco*....66
Redewill, Francis H., Jr., *Whittier*....360
Rosenblum, Harold, *San Francisco*....233

S

Scharnagel, Isabel M., *New York*....283
Schindler, Rudolph, *Los Angeles*....110
Scholl, A. J., *Los Angeles*....249
Shaw, Edward B., *San Francisco*....1
Shimkin, Michael B., *San Francisco*....364
Snyder, J. C., *New York*....3
Sokolow, Maurice, *San Francisco*....221
Soley, Mayo H., *San Francisco*....75, 131
Sternberg, Thomas H., *Los Angeles*....344
Stevens, G. Arnold, *Beverly Hills*....235
Stewart, D. E., *Huntington Park*....238
Stout, O. Milton, *Los Angeles*....306
Stratton, Ernest K., *San Francisco*....70, 240

T

Thompson, Vernon P., *Los Angeles*....20
Trimble, H. G., *Oakland*....271

U

Underwood, Laurence J., *Huntington Park*....360

W

Waine, Hans, *San Francisco*....295
Waxman, A., *Los Angeles*....358
Windholz, Frank, *San Francisco*....331
Wood, David A., *San Francisco*....364

SUBJECT INDEX

A

Abdominal Pain, Upper (CC)....375
Acute Hematogenous Osteomyelitis Treated with Penicillin—A Case Report, by Carlton C. Purviance, Vallejo, and John L. Lovejoy, Jacksonville (Or.)....302
Acute Transient Pancreatitis Associated with Chronic Cholecystitis and Cholelithiasis (CC)....257
Aerosol Therapy (Ed.)....136
Allergy (BR)....54
Allergic Disorders and Their Place in the Histamine Theory, The Newer Drugs For, by Milton M. Hartman, San Francisco (Or.)....242
Amendments to C.M.A. Constitution, Proposed (CMA) 265
American Cancer Society Directors' Meeting, Report on (CMA)....317
American Cancer Society, Annual Drive of (CMA)....92

Amputations of the Hands, Feet, and Digits, Immediate Management of, by Gerald B. O'Connor, San Francisco (Or.) 11
Amputations of the Hand and Fingers, by Vernon P. Thompson, Los Angeles (Or.) 20
Analbis Suppositories Recalled from Market (I) 324
Anesthesia for Short Upper Abdominal Surgery, Fractional Spinal, by Joseph Brill, Inglewood, and D. E. Stewart, Huntington Park (Or.) 238
Annual Meeting, The Coming 1947 (Ed.) 90
Antibiotics in the Treatment of Hemolytic Streptococcus Sore Throat, by Lowell A. Rantz, San Francisco (Or.) 66
Anticarcinogenic Serum, by W. H. Manwaring (LE) 52
Antihistaminic Drugs and Nasal Vasoconstrictors (Ed.) 36
Arteriovenous Aneurysm in a Naval Hospital, Diagnosis and Treatment of, by G. Arnold Stevens, Beverly Hills (Or.) 235
Aphasia: A Guide to Retraining (BR) 419
Asthma, The Present-Day Treatment of, by M. Coleman Harris, Beverly Hills (Or.) 354

B

Bacterial Meningitis with Penicillin, Sulfonamides, Treatment of, by Henry Brainerd and Elizabeth Bradley, San Francisco (Or.) 57
Blanchard Mechanotherapist in Treating Postoperative Atelectasis, Use of the, by O. Leonard Huddleston, Los Angeles (Or.) 25
Blood Bank Services in California, Suggested Program for Development of (I) 100
Bronchial Asthma, The Diagnosis and Treatment of (BR) 276

C

C.M.A. Constitution, Proposed Amendments (CMA) 265
California Physicians' Service—
A Library of Medical Data (CMA) 411
Growing Use of C.P.S. Service by Veterans (CMA) .. 46
Letter on Use of Lay Laboratories (CMA) 412
More members, income, problems, experience (CMA) 91
Your Secretary and Editor Visit C.P.S. Offices (CMA) 264
Cancer and the Embryonal Hypothesis (LE) 270
Cancer Commission Refresher Course (I) 149
Cancer Commission's Revised Studies to be Published in California Medicine (CMA) 317
Cancer Mortality in San Francisco, by J. C. Geiger, San Francisco (Or.) 297
Cancer of the Stomach, What Does Gastroscopy Offer in the Early Diagnosis of? by Rudolph Schindler, Los Angeles (Or.) 110
Cancer of the Upper End of the Stomach, Recent Advances in Surgical Treatment of, by Gunther W. Nagel, San Francisco (Or.) 118
Cancer, Problems in the X-Ray Diagnosis of Early, by Kenneth S. Davis, Los Angeles (Or.) 117
Cancer Problem, The: California Cancer Commission Studies, Chapter I, by David A. Wood and Michael B. Shimkin, San Francisco (Or.) 364
Carcinoma of the Stomach, What Can the Internist Do to Get More Early Cases to the Surgeon? by Clayton D. Mote, San Francisco (Or.) 108
Carcinoma of the Stomach, by Thomas F. Mullen, San Francisco (Or.) 107
Carcinoma of the Colon, Use of Sulfasuxidine in Resection of—Effect on Infection and Mortality, by H. Glenn Bell, San Francisco (Or.) 292
Carcinoma of the Prostate, Progress in the Treatment of, by A. J. Scholl, Los Angeles (MP) 249
Child and Adolescent Life in Health and Disease (BR) 327
Chronic Mastoiditis, Roentgenology in, by Harold A. Fletcher, San Rafael, and Frank Windholz, San Francisco (Or.) 331
Chronic Urethritis in the Female, Estrogen Treatment of, by Frederick S. Howard (Or.) 352
Clinical Aspects of Rheumatic Fever in the Adult on the Pacific Coast, Some, by Maurice Eliaser, Jr., San Francisco (Or.) 217
Compulsory Government Health Service (Ed.) 313
Coronary Insufficiency (Ed.) 311
Cushing, Harvey (BR) 273
Cushny's Pharmacology and Therapeutics (BR) 275
Cutaneous Reactions to Penicillin, by Ben A. Newman, Los Angeles (Or.) 349
Cystitis, Treatment of Interstitial, by Roger W. Barnes, Los Angeles (Or.) 347

D

Democracy Prevails Again (Ed.) 373
Diagnosis and Treatment of Arteriovenous Aneurysm in a Naval Hospital, by G. Arnold Stevens, Beverly Hills (Or.) 235
Diagnostic Medical Care and Lay Laboratories (Ed.) 374
Diet Therapy, Handbook of (BR) 54
Differential Diagnosis of Adult Rheumatic Fever and Rheumatoid Arthritis, The, by Ephraim P. Engelman, San Francisco (Or.) 227
Dysfunctions of the Liver, Use of the Thymol Turbidity Test as an Aid in Diagnosis of, by Donald C. Dodds, San Francisco (Or.) 125

E

Electrocardiogram in the Diagnosis and Management of Rheumatic Fever, The, by Maurice Sokolow, San Francisco (Or.) 221
Endocrinology, Office (BR) 329
Epilepsy, The Present Status of (CC) 38
Epinephrine, Recovery from a Surely Fatal Dose of, by P. J. Hanzlik, San Francisco (LE) 104

F

Fatal Myocarditis with Complete Heart Block from Diphtheria, by R. A. Kocher, Carmel (Or.) 27
Fractional Spinal Anesthesia for Short Upper Abdominal Surgery, by Joseph Brill, Inglewood, and D. E. Stewart, Huntington Park (Or.) 238
Fracture of the Olecranon Process Due to Muscle Pull with the Forearm in Hyperextension, by A. Waxman and H. Geshelin, Los Angeles (Or.) 358
Fraud, Check of in Vet Treatment Ordered (I) 416

G

Gamma-666 vs. DDT, by W. H. Manwaring (LE) 52
Gastric Cancer, Radical Surgical Treatment of, by George T. Pack, New York (Or.) 120
General Medicine, The 1946 Year Book of (BR) 105
Goiter, Management of Patients with Various Types of, by Mayo H. Soley, San Francisco (MP) 131
Gold Therapy in Rheumatoid Arthritis, Controlled Evaluation of, by Hans Waine, Frances Baker, and Stacy R. Mettier, San Francisco 295
Gynecological and Obstetrical Pathology (BR) 274
Gynecology, Progress in (BR) 418

H

Hand and Fingers, Amputations of the, by Vernon P. Thompson, Los Angeles (Or.) 20
Hand and Fingers, Joints of the: Their Stiffness, Splinting and Surgery, by Donald R. Pratt, Menlo Park (Or.) 22
Hand, Infection of: With Evolution of Chemotherapy, by Joseph H. Boyes, Los Angeles (Or.) 18
Health Insurance Bills, C.M.A. Policy on, by Sam J. McClendon (I) 143
Health Insurance Propaganda (Ed.) 137
Health Week Campaigns, The Physician's Part in (CMA) 45
Heart Disease, What Is? (BR) 153
Hematology, Clinical (BR) 152
Hematology, Principles of (BR) 276
Hemolytic Streptococcus Sore Throat, Antibiotics in the Treatment of, by Lowell A. Rantz, San Francisco (Or.) 66
Hill, Dr. Harold Philips (CMA) 143
Hospitals: Districts; Constitutionality of the Local Hospital District Law (MJ) 56
Hypometabolism (BR) 327

I

Infection of the Hand, with Evolution of Chemotherapy, by Joseph H. Boyes, Los Angeles (Or.) 18
Insulin, Improved Forms of: Advantages of Modified Protamine Zinc Insulin, by Cyril M. MacBryde, Los Angeles (Or.) 79
Internal Disease, The Eye Manifestations of (BR) 105
Intracranial Complication of Ear, Nose and Throat Infections (BR) 326
Intractable Asthma, Physiological Basis for the Treatment of, by Hyman Miller, Beverly Hills (Or.) 128

J

Jaundice, Differential Diagnosis of (BR) 55
Joints of the Hand and Fingers—Their Stiffness, Splinting and Surgery, by Donald R. Pratt, Menlo Park (Or.) 22

L

Lane, Sir W. Arbuthnot (BR) 105
Legislative Prospect, 1947 (CMA) 45

M

Malignant Melanoma, The Treatment of—Report of 862 Cases, by George T. Pack, New York, S. L. Perzik, Los Angeles, and Isabel M. Scharnagel, New York 283
Malpractice: Degree of Skill Required of a Surgeon: Acts Constituting Negligence in Treatment (MJ) 106
Malpractice: Sufficiency of Evidence from Which a Jury May Draw Conclusions (MJ) 154
Medical Research, The National Society for (I) 323
Medical Treatment, Textbook of (BR) 326
Medicine, An Integrated Practice of (BR) 272
Medicine's Challenge, by S. J. McClendon, San Diego (Or.) 277
Menstrual Disorders and Sterility (BR) 273
Minutes of the 338th Meeting of the Council (CMA) 94
Minutes of the 339th Meeting of the Council (CMA) 261
Minutes of the C.M.A. House of Delegates (CMA) 378
Modern Dermatology and Syphilology (BR) 417
Mongolism and Cretinism (BR) 153
Most Unphysiological Period of Life, The, by Edward B. Shaw, San Francisco (Or.) 1
Myasthenia Gravis (BR) 55
Myocarditis with Complete Heart Block from Diphtheria, Fatal, by R. A. Kocher, Carmel (Or.) 27

N

Narcotics Across National Borders, Rule on Carrying (I) 324
National Formulary, The (BR) 276
Negligence: Res Ipsa Loquitur (MJ) 420
Neuro-Ophthalmologic Examination, Clinical Methods of (BR) 54
Neurology, A Textbook of Clinical (BR) 273
Neurology, Recent Advances in, by Charles D. Aring, San Francisco (MP) 84
Neurological Complications to Treatment with Rabies Vaccine, by Francis H. Redewill, Jr., Whittier, and Laurence J. Underwood, Huntington Park (Or.) 360
Neuromuscular Exhaustion Syndrome, Subacute: A Report of Three Cases, by J. M. Nielsen, Los Angeles (Or.) 338
Nitrous Oxide and Oxygen Anesthesia with Curare Relaxation, by William Neff, Edward C. Mayer, and Maria de la Luz Perales, San Francisco (Or.) 67
Newer Drugs for Allergic Disorders and Their Place in the Histamin Theory, The, by Milton M. Hartman, San Francisco (Or.) 242
News of the Day in the C.M.A. (CMA) 91, 142, 260, 316
Nursing at the Crossroads (Ed.) 255

O

Obstetrics and Gynecology, Quarterly Review of (BR) 105
Open Wounds of the Hand, Primary Treatment of, by John E. Kirkpatrick, San Francisco (Or.) 15
Osteomyelitis Treated with Penicillin—A Case Report, Acute Hematogenous, by Carlton C. Purviance, Vallejo, and John L. Lovejoy, Jacksonville (Or.) 302

P

Pancreatitis Associated with Chronic Cholecystitis and Cholelithiasis, Acute Transient (CC) 257
Pediatrician, The Compleat (BR) 152
Pediatrics, Recent Progress in, by Peter Cohen, San Francisco (MP) 30
Penicillin in Syphilis (BR) 418
Penicillin, Its Practical Application (BR) 106
Penicillin Therapy, An Evaluation of Topical: Review of Recent Literature, by Thomas H. Sternberg and Paul Le Van, Los Angeles (Or.) 344
Peritonitis Due to Perforation of a Meckel's Diverticulum Incarcerated in a Right Femoral Hernia, Generalized (CPC) 141
Peptic Ulcer, Vagotomy for (Ed.) 372
Physiological Basis for the Treatment of Intractable Asthma, by Hyman Miller, Beverly Hills (Or.) 128
Pneumococcic Pneumonia with Penicillin and Sulfadiazine, The Treatment of, by Morris F. Collen, Oakland (Or.) 62
Poison Oak—New Antigens and Their Effect on Sensitized Guinea Pigs, by Ernest K. Stratton, San Francisco (Or.) 70
Poison Oak—New Antigens and Their Effect on Sensitized Patients, by Ernest K. Stratton, San Francisco (Or.) 240
Polio, The Challenge of (BR) 54
Poliomyelitis Coordinating Council's Role in the 1946 Epidemic in Los Angeles, The (I) 269
Postgraduate Courses Announced by U.C. (I) 416
Postoperative Atelectasis, Use of the Blanchard Mechanotherapist in Treating, by O. Leonard Huddleston, Los Angeles (Or.) 25
Pre-Convention Program and Reports, Seventy-sixth Annual Session (MJ) 154
Preschool Child, The Personality of the (BR) 152
Primary Treatment of Open Wounds of the Hand, by John E. Kirkpatrick, San Francisco (Or.) 15
Progress in the Management of Syphilis, by J. F. Flynn and O. Milton Stout, Los Angeles (Or.) 306
Psychiatric Foundation Announces Broad Program for Mental Health, Newly Formed (I) 50
Public Health, Action to Improve Local Services Advocated, by Wilton L. Halverson (I) 50
Public Measures for the Control of Rheumatic Fever in England, by John Parkinson, London (Or.) 230
Public Relations and Medicine (Ed.) 312
Public Relations of a State Medical Society, by John W. Cline, San Francisco (Or.) 213
Pulse in Ancient Chinese Medicine, The, by Albert Fields, Los Angeles (Or.) 304

Q

Q Fever Infection, The Increasing Importance of, by Garnett Cheney, San Francisco (Or.) 280

R

Rabies Vaccine, Neurological Complications to Treatment with, by Francis H. Redewill, Jr., Whittier, and Laurence J. Underwood, Huntington Park (Or.) 360
Radical Surgery in Advanced Abdominal Cancer (BR) 417
Radio Show, New Hour for (CMA) 46
Recent Progress in Pediatrics, by Peter Cohen, San Francisco (MP) 30
Rehabilitation of Tuberculous Patients (LE) 271
Relation of the General Practitioner to the Practice of Medicine in Hospitals, The (Ed.) 254
Respiratory Mold Allergy—A 12 Months' Atmospheric Survey in San Francisco, by William C. Deamer, San Francisco, and Herbert W. Graham, Oakland (Or.) 289
Rheumatic Fever and Rheumatoid Arthritis, The Differential Diagnosis of Adult, by Ephraim P. Engleman, San Francisco (Or.) 227
Rheumatic Fever Control Program in California, by Harold Rosenblum, San Francisco (Or.) 233
Rheumatic Fever in England, Public Measures for the Control of, by John Parkinson, London (Or.) 230
Rheumatic Fever in the Adult on the Pacific Coast, Some Clinical Aspects of, by Maurice Eliaser, Jr., San Francisco (Or.) 217
Rheumatic Fever, The Electrocardiogram in the Diagnosis and Management of, by Maurice Sokolow, San Francisco (Or.) 221
Rheumatoid Arthritis, Controlled Evaluation of Gold Therapy in, by Hans Waine, Frances Baker, and Stacy R. Mettier, San Francisco (Or.) 295
Roentgenology in Chronic Mastoiditis, by Harold A. Fletcher, San Rafael, and Frank Windholz, San Francisco (Or.) 331
Rupture of the Heart, by Walter W. Ellwood, San Leandro (Or.) 287

S

Salute to a Gentleman (CMA) 412
Segmental Neuralgia in Painful Syndromes (BR) 153
Sewall, Henry, Physiologist and Physician (BR) 152
Soviet "ACS" Therapy, by W. H. Manwaring (LE) 151
State Medicine, A Stronger Front Against (Ed.) 35
State Medicine, Supplement on (BR) 419
Statute of Limitations in a Malpractice Action, Application of (MJ) 330
Stomach, Carcinoma of the, by Thomas F. Mullen, San Francisco (Or.) 107

Stomach, Cancer of the Upper End of the: Recent Advances in Surgical Treatment of, by Gunther W. Nagel, San Francisco (Or.) 118
Stomach, Cancer of, What Does Gastroscopy Offer in the Diagnosis of? by Rudolph Schindler, Los Angeles (Or.) 110
Stomach, Carcinoma of the, What Can the Internist Do to Get More Early Cases to the Surgeon? by Clayton D. Mote, San Francisco (Or.) 108
Subacute Generalized Neuromuscular Exhaustion — A Report of Three Cases, by J. M. Nielsen, Los Angeles (Or.) 338
Sulfasuxidine in Resection of Carcinoma of the Colon—Effect on Infection and Mortality, by H. Glenn Bell, San Francisco (Or.) 292
Surgery in Congenital Heart Disease, The Present Status of, by John C. Jones, Los Angeles (Or.) 341
Surgery, Introduction to (BR) 275
Surgical Anatomy, A Synopsis of (BR) 419
Surveys for 1947 (Ed.) 37
Syphilis, Progress in the Management of, by J. F. Flynn and O. Milton Stout, Los Angeles (Or.) 306

T

Thiouracil in Thyroid Diseases, by Mayo H. Soley, San Francisco (Or.) 75
Thomason, Dr. George (CMA) 266
Thymol Turbidity Test as an Aid in Diagnosis of Dysfunctions of the Liver, Use of the, by Donald C. Dodds, San Francisco (Or.) 125
Typhus Fever in the Second World War, by J. C. Snyder, New York (Or.) 3
Tissue Anoxia, Prevention of (LE) 325
Topical Penicillin Therapy, An Evaluation of: Review of Recent Literature, by Thomas H. Sternberg and Paul Le Van, Los Angeles (Or.) 344
Tuberculosis in General Hospitals, The Management of (BR) 326
Tuberculosis Masquerading as Meningovascular Lues (CPC) 314
Tuberculous Patient, A Guide for the (BR) 328
Tuberculous Patients, Rehabilitation of (LE) 271

U

Upper Abdominal Pain (CC) 375
Uterine Contractility in Pregnancy (BR) 328

V

Vagotomy for Peptic Ulcer (Ed.) 372
Vitamin Supplements, The Use of (Ed.) 89

X

X-Ray Diagnosis of Early Cancer, Problems in the, by Kenneth S. Davis, Los Angeles (Or.) 117
X-Ray Diffraction Studies in Biology and Medicine (BR) 417

BOOK REVIEWS

Allergy 54
Aphasia: A Guide to Retraining 419
Bronchial Asthma, The Diagnosis and Treatment of 276
Cushing, Harvey 273
Cushny's Pharmacology and Therapeutics 275
Diet Therapy, Handbook of 54
Eye Manifestations of Internal Diseases, The 105
General Medicine, The 1946 Year Book of 105
Gynecological and Obstetrical Pathology 274
Gynecology, Progress in 418
Hematology, Clinical 152
Hematology, Principles of 276
Hypometabolism 327
Intracranial Complication of Ear, Nose and Throat Infections 326
Jaundice, Differential Diagnosis of 55
Lane, Sir W. Arbuthnot 105
Medical Treatment, Textbook of 326
Medicine, An Integrated Practice of 272
Menstrual Disorders and Sterility 272
Modern Dermatology and Syphilology 417
Mongolism and Cretinism 153
Myasthenia Gravis 55
National Formulary, The 276
Neurology, A Textbook of Clinical 273
Neuro-ophthalmologic Examination, Clinical Methods of 54
Obstetrics and Gynecology, Quarterly Review of 105
Office Endocrinology 329
Penicillin in Syphilis 418
Penicillin, Its Practical Application 106
Polio, The Challenge of 54
Preschool Child, The Personality of the 152
Radical Surgery in Advanced Abdominal Cancer 417
Segmental Neuralgia in Painful Syndromes 153
Sewall, Henry, Physiologist and Physician 152
State Medicine, Supplement on 419
Surgery, Introduction to 275
Surgical Anatomy, A Synopsis of 419
Tuberculosis in General Hospitals, The Management of 326
Tuberculous Patient, A Guide for the 328
Uterine Contractility in Pregnancy 328
What is Heart Disease? 153
X-Ray Diffraction Studies in Biology and Medicine 417

CALIFORNIA MEDICAL ASSOCIATION

American Cancer Society, Annual Drive of 92
American Cancer Society Directors' Meeting, Report on 317
California Physicians' Service—
A Library of Medical Data 411
Growing Use of Service by Veterans 46
Letter on Use of Lay Laboratories 412
More Members, Income, Problems, Experience 91
Your Secretary and Editor Visit C.P.S. Offices 264
Cancer Commission's Revised Studies to be Published 317
Health Week Campaigns, The Physician's Part in 45
Hill, Dr. Harold Philips, In Appreciation of 143
Legislative Prospects, 1947 45
Minutes of the 338th Meeting of the Council, C.M.A. 94
Minutes of the 339th Meeting of the Council, C.M.A. 261
Minutes of the C.M.A. House of Delegates 378
News of the Day in the C.M.A. 91, 142, 260, 316
Proposed Amendments to C.M.A. Constitution 265
Radio Show, New Hour for 46
Thomason, Dr. George 266

CLINICAL CONFERENCES

Epilepsy, The Present Status of 38
Pancreatitis Associated with Chronic Cholecystitis and Cholelithiasis, Acute Transient 257
Upper Abdominal Pain 375

CLINICAL-PATHOLOGICAL CONFERENCES

Peritonitis due to perforation of a Meckel's diverticulum incarcerated in a right femoral hernia, Generalized 141
Tuberculosis masquerading as Meningovascular lues 314

INFORMATION

Blood Bank Services in California, Suggested Program for Development of 100
Cancer Commission Refresher Course 149
Check of Fraud in Vet Treatment Ordered 416
Health Insurance Bills, C.M.A. Policy on 148
Medical Research, The National Society for 323
Mental Health, Newly Formed Psychiatric Foundation Announces Broad Program for 50
Poliomyelitis Coordinating Council's Role in the 1946 Epidemic in Los Angeles, The 269
Postgraduate Courses Announced by U. C. 416
Public Health, Action to Improve Local Services Advocated 50

LETTERS TO THE EDITOR

Anticarcinogenic Serum 52
Cancer and the Embryonal Hypothesis 270
Epinephrine, Recovery from a Surely Fatal Dose of 104
"Gamma-666" vs. DDT 52
Rehabilitation of Tuberculous Patients 271
Soviet "ACS" Therapy 151

MEDICAL JURISPRUDENCE

Hospitals: Districts: Constitutionality of the Local Hospital District Law 56
Malpractice: Degree of Skill Required of a Surgeon: Acts Constituting Negligence in Treatment 106
Malpractice: Sufficiency of Evidence from Which a Jury May Draw Conclusions 154
Negligence: Res Ipsa Loquitur 420
Statute of Limitations in a Malpractice Action, Application of 330

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The Most Unphysiological Period of Life

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THROUGHOUT all the generations of its evolution from savagery to civilization the human race has developed a pattern of dietary and of daily routine suitable to its needs. Modern scientific study has served simply to substantiate the physiological normality of this regimen.

The newborn infant has a similarly adapted pattern of existence which has been little altered until the very last few years. Primitively the infant was born with a minimum of midwifery. He was bedded with his mother and promptly put to her breast and in common with all other newborn mammals made almost constant effort at sucking during his first few days. The baby was able initially to secure only small amounts of colostrum but gradually, stimulated in part by the efforts of the baby, the maternal milk supply was established and an adaptation effected between the needs of the baby and the nourishment provided by the mother.

The initial meagreness of the breast milk was accepted as a matter of course and was practically never supplemented. Loss of weight during the first few days was expected and if this served no useful purpose it seemed at least to do the normal infant no harm. As a matter of fact frequent weighings were not done. The loss of weight was quickly regained and by the end of the first week or so the normal baby had commenced to gain and to thrive on his natural food. To be sure, the infant whose mother never produced sufficient breast milk made rather rough going of it. Successful artificial feeding was to be a much later development.

The baby was almost always delivered at home and was not subjected to innumerable contacts with other infants and attendants. Epidemic diseases of neonatal life were to be a much later hazard.

Circumcision was imposed as a rite by certain religious sects but was certainly not practiced as a medical necessity. All in all, very little was done to the newborn child which departed radically from the management of other newborn mammals, either wild or domestic.

All this has been greatly modified during the course of only a few years through the instrumentation of modern obstetrics, pediatrics, and especially of routine hospitalization during the lying-in period. Most infants are now delivered in hospitals and many of the procedures which have been introduced as safeguards for mother and infant subject the latter to artificial conditions which depart from the physiological norm. These changes merit scrutiny with regard to their complete acceptability.

The mother has been subjected to more and more procedures in order to alleviate the pains of labor and to expedite delivery. Many babies are born sufficiently affected by hypnotic, narcotic and anesthetic drugs that their first and succeeding cries are distinctly less vigorous than might be desired to initiate and to maintain respiration, and not infrequently this languor persists for one or more days. However desirable it may be for the mother to escape severe pain and despite the fact that in many ways the infant is benefited by methods which expedite delivery, there is little doubt that severe anoxia is sometimes produced by the medication employed and the effect of this anoxia on the nervous system of the infant, even when of short duration, may be far reaching and most dismal.

No sooner is the infant delivered than silver nitrate solution is dropped into his eyes. Credé prophylaxis was introduced for the control of gonorrheal ophthalmia. Infections have occurred in the past despite it, but it has been steadfastly maintained that the frequency of ophthalmia has thus been greatly reduced and the practice has been perpetuated by statute. There is no doubt, however, that the introduction of silver nitrate solution into the tearless eyes of the infant does produce a chemical conjunctivitis of varying severity and duration and sometimes leads to continued obstruction of the naso-lacrimal duct and persistent puru-

lent conjunctivitis which provokes squinting and annoyance on the part of the baby. The end result may, I believe, be of sufficient importance to interfere with the early efforts at ocular fusion and the establishment of binocular vision and thus be of far reaching importance.

As gonorrheal infections of adults are now being treated with much better success, the infant is thus provided with greatly increased protection. Treatment of the infected infant has likewise been greatly improved by the introduction of chemotherapy and anti-biotic agents. Silver preparations have been almost abandoned in therapy. It is high time that these more potent and less irritating drugs be substituted for the harmful silver nitrate in prophylaxis.

The baby has barely roused from his narcotized stupor when a bottle containing a cow's milk formula is thrust into his mouth and during the succeeding hours and days he is generally encouraged at regular intervals to accept artificial food. He may be put to the maternal breast sporadically but is never placed there with the frequency and constancy which seems to be the physiological normal for all mammals, including man, during the newborn period.

The majority of physicians, almost as though intoning a creed, will state that breast milk is the best food for the infant. Invariably, however, physicians and nurses seem to do everything possible to thwart maternal nursing. The baby is usually at some distance from the mother and frequent transport to the mother is a chore which fits poorly with hospital routine. It seems to be thought unnecessary to put the infant to breast "before the milk comes in," thus removing an important stimulus to milk production. Whatever the importance of the colostrum may be, the modern baby has little chance to benefit from it. There is usually great concern lest the mother's convalescence be too much disturbed by the infant. In those cases in which maternal nursing is not contemptuously abandoned at the outset, all concerned profess to be completely baffled by the non-appearance of breast milk and evince increasing alarm over continuing weight loss. So many things thus conspire to discourage breast feeding during the lying-in period that the majority of babies leave the hospital on completely artificial feeding.

It can easily be shown that the quantitative results of artificial feeding, as judged by weight gain, are equal or superior to those effected by natural feeding. Nature seems at times to underfeed, especially during the neonatal period, but it will require generations of experience to prove a thesis which seems commonly to be held that *maximum* nutrition is always *optimum* nutrition or that qualitative requirements are of less importance than those which are purely quantitative. Some of the experiments with rats in which longevity seemed to be poorest with infantile super-nutrition[1] might lead to sober reflection on this score. The requirements of infant nutrition are certainly not best served by methods of feeding which resemble those used to fatten the pig for early market.

The enforced separation of mother and child not only interferes with normal feeding but also effectively precludes fondling and the establishment of an adaptation between the two which gratifies an instinctive need of the mother and, almost beyond doubt, of the infant. During the lying-in period, with ample nursing care, comfort and convenience, the mother might readily become familiar with her offspring and be trained to a routine of feeding and management without any necessary deterrents to her convalescence. Instead of this she must undertake all this adjustment after she returns to her home away from skilled guidance and with the added burden of the household upon her.

While the baby is kept in the nursery there is definite risk of infection through exposure to numerous other infants and attendants. The danger of neonatal infection was never completely absent, even when most babies were born at home and handled individually but this danger has been immeasurably increased by the greater proportion of hospital deliveries, especially in recent times under the handicap of diminished personnel. This factor can be held in check only by elaborate precautions of aseptic nursing. In spite of these precautions, recent years have seen increases of epidemic disease of the newborn, especially the diarrheas of the newborn.

It goes without saying, that there are definite advantages in having skilled attendance during the newborn period but the fact must never be lost sight of that this type of care involves compensatory risks of infection of the infant's skin, gastrointestinal tract, and respiratory system. Not many years ago, newborn nurseries were not the rule; even when most infants were delivered in hospitals the baby commonly occupied the mother's room. More recently this has been changed so that mother and child are completely separated. However difficult it might be with respect to the convenience of nursing care, a return, at least in part, to a routine in which mother and child would spend most of the hospital time together would have many advantages.

The baby boy has further unhappiness imposed upon him when (almost invariably) he is circumcised. The physiological reasons for this practice escape me although it is a venerable religious rite. Mothers usually either demand it or simply accept it as the proper thing. What little can be said in its favor, perhaps with respect to cleanliness, apparently appeals to the mother who is, after all, a female, but this little is persuasively outweighed by the pain and risk thus inflicted and by the lack of any good physiological reason for it. I should be loath to imply that any serious psychic or somatic damage is thus usually inflicted although there are extant in medical writings a few bitter protests from elderly—and presumably circumcised—physicians against it.

The two or three decades which have been responsible for these profound changes in the management of the lying-in period have been accompanied by great improvement in maternal and neonatal morbidity and mortality, but one may certainly question if this improvement has been because of all these things and not in spite of some

of them. We will do well to scrutinize each detail of early infant care to determine if it fulfills a physiological optimum or constitutes simply a compromise of the normal with hospital, obstetric, and pediatric convenience. Such errors as may have crept into the management of this period are certainly not chargeable directly to the obstetrician, for the time which has wrought these changes has been one in which the pediatrician has assumed constantly increasing responsibility in the nursery.

From the standpoint of the pediatrician, at least of this pediatrician, it seems desirable that attempts be made to modify the care of the newborn infant in the following direction:

1. Mothers should receive a minimum of medication as a preliminary to delivery compatible with relative freedom from severe pain.

2. Chemotherapeutic and anti-biotic substitutes for Credé prophylaxis should promptly be explored and introduced.

3. Maternal nursing should be re-accepted as the normal method of feeding and honest efforts made to encourage it, not to defeat it.

4. Added opportunity should be provided for mother and infant to effect an acquaintance and adaptation during the lying-in period.

5. Circumcision should not be proposed as a medical necessity unless better justification for it can be advanced.

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Typhus Fever in the Second World War*

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IN most of the previous conflicts on the European continent, typhus fever caused enormous suffering and loss of life among soldiers and civilians. Because it had played a decisive role in many military campaigns of the past, typhus was regarded at the outbreak of the second World War as one of the most dangerous of the potential epidemic diseases which were expected to occur during or after the war. Although its toll among civilians in certain regions has indeed been considerable in the years 1939 to 1946, the recent developments in our knowledge of its prevention and control have achieved such remarkable results that the discussion of these developments at some length now seems pertinent. In order to provide a background for an appreciation of the new methods of combating typhus, I shall review the history of typhus and then describe the events in the second World War as they bear on our subject.

Hirsch, in his account of historical pathology says:

"The history of typhus is written in those dark pages of the world's story which tell of the grievous visitations of mankind by war, famine, and misery of every kind. In every age, as far back as the historical inquirer can follow the disease at all, typhus is met with in association with the saddest misfortunes of the populace; and it is, therefore, a well-grounded surmise that the numerous pestilences of war and famine in ancient times and in the Middle Ages, which are known to us, not from medical sources but merely from the chronicles, had included typhus fever as a prominent figure among them."[1]

The earliest scientific discussion of typhus probably is that of Fracastorius in his famous "De Contagione et Contagiosis Morbis" published in 1546.[2] The existence of other epidemic diseases, such as plague, relapsing fever, smallpox, and typhoid, at one and the same time with typhus had made difficult its recognition as a separate entity. Even the description of Fracastorius is confusing in certain respects, and not until 1837, almost 300 years later, were typhus and typhoid clearly differentiated for the medical profession by an American physician, W. W. Gerhard.[3]

In the history of Europe after the fifteenth century, there is no difficulty in finding reports of many outbreaks which most certainly were typhus fever. As early as 1489 the Spanish soldiers who had fought against the Turks in Cyprus brought typhus to Spain. At the siege of Granada 17,000 men in Ferdinand and Isabella's army died of typhus, almost six times the number killed in combat with the Moors.[4] Soon thereafter typhus appeared in Italy, where Fracastorius had occasion to study its characteristics. In 1528 the French army besieging Naples was at the point of decisive victory over the forces of Charles V, a victory which would have had enormous effects on the subsequent developments in Europe. But then, as Zinsser put it, "typhus made its political debut . . . by one of the most far-reaching and profoundly effective strokes of its entire career . . ."[5] With great rapidity it struck down 30,000 soldiers in the camps of the French, and the remnants of the army were forced to withdraw.

During this period the battles in the Balkans contributed greatly to the spread of typhus across the continent of Europe. Large forces were assembled from various parts of Germany, Italy, and France and were sent against the Turks, but many of the men fell victims to typhus before they reached the battlefields. The disease became known as the "Morbus Hungaricus" as it was disseminated throughout Europe by the soldiers returning from Hungary.[6]

During the seventeenth century typhus continued its exploits in the almost incessant military struggles of that era, affecting civilians and soldiers alike. During the Thirty Years' War, when the Swedish army under Gustavus Adol-

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phus was about to launch a campaign against Wallenstein at Nuremberg in 1632, typhus, aided by scurvy, killed 18,000 soldiers and forced both armies to withdraw.[5]

In the century and a half between the Thirty Years' War and the Napoleonic campaigns, typhus contributed almost continuously to the chronicles of epidemic disease. In the invasion of Russia in 1812, typhus was one of the major factors in the disaster which befell Napoleon's army of half a million men. Prinzing gives this account of the campaign: ". . . When Napoleon's army withdrew from Moscow it left behind several thousand typhus fever patients, almost all of whom died—only the stronger patients were taken along on wagons . . . In Vilna, which was greatly overcrowded, typhus fever raged furiously. The large number of sick and exhausted soldiers that were left behind, owing to the extreme cold . . . sought shelter, partly in private homes, and partly in hospitals. The latter were in a terrific condition: sick men and dead men were packed together in the cold unheated rooms, the former lying on rotten straw, completely deserted, and without care or nourishment. The few unfortunate soldiers who had survived the awful misery of the march, hungry, clothed in rags, with torn shoes, alive with vermin, with frozen and gangrenous limbs, scattered in all directions, some going home, and others to strongholds that were in the hands of the French."[7]

From 1812 we pass over another hundred years to the first World War and find typhus again striking frightfully in Serbia[8,9] and later in Russia.[10] Estimates place the number of cases of typhus fever in Russia as high as thirty million in the years 1918-22 and deaths as many as three million. Typhus probably has taken as many lives in the past 400 years as have all the weapons of war in the battles of these blood-drenched centuries.

After surveying this impressive record, it will be of interest to inquire more closely into the characteristics of typhus fever. What was known of its etiology, transmission, prevention, control, and treatment at the outbreak of the second World War?

STATUS OF KNOWLEDGE OF TYPHUS IN 1939

Etiology. The micro-organism which causes classical epidemic typhus fever was described in 1916 and was given the name of *Rickettsia prowazeki*, which honors two of the early investigators who contracted typhus and died, Dr. H. T. Ricketts, an American, and Dr. S. von Prowazek, an Austrian.[11] The term "rickettsial disease" is now applied not only to typhus fever, but also to several other human diseases which are similar clinically to typhus and which are caused by other rickettsiae. *Rickettsiae prowazeki* are pleomorphic cocco-bacillary forms which multiply inside certain cells of susceptible hosts. In the classification of micro-organisms, rickettsiae occupy a position between bacteria and viruses.

In addition to classical epidemic typhus fever, another form is now recognized—murine typhus fever. The etiologic agent has been named *Rickettsia mooseri*[12] in honor of the Swiss physician who observed the micro-organisms in the cells of infected guinea pigs. Murine typhus is world wide in distribution, occurring sporadically as a relatively mild disease with a low mortality. The relationship of murine to classical epidemic typhus is most interesting but our attention in this discussion will be restricted entirely to a consideration of classical typhus fever.

Transmission. In 1909, Nicolle, Comte, and Conseil discovered that typhus is transmitted by the body louse, *Pediculus humanus corporis.*[13] *Rickettsiae prowazeki* are present in the blood of patients suffering from typhus during the febrile period of the disease. The body louse sucks blood, and the rickettsiae enter the cells lining the intestinal tract of the louse. In a few days the rickettsiae have multiplied so profusely that the cells containing them are swollen and may burst, liberating the organisms, which may then be passed in the feces of the louse or may enter still other cells. Eventually, the typhus-infected lice die of intestinal obstruction caused by the enormous swelling of the lining cells. Lice tend to leave febrile patients in favor of persons with normal temperatures, and likewise they quickly abandon a corpse and seek a new host. Each time a louse bites, it makes a small puncture in the skin, and it also defecates as it sucks blood. The site of the louse bite is somewhat irritating, and the person tends to scratch, thus rubbing the feces of the louse into the skin, probably over the puncture. This is the usual way in which the infection is passed from man to man. It is also possible to become infected by crushing an infected louse on the skin, by rubbing the infected feces into the eyes, or by having dried feces of the infected louse gain access to the conjunctivae or the mucous membranes of the respiratory tract, as an airborne infection. It is important to recall that the typhus infection in lice establishes itself after an incubation period, just as it does in man. The period of maximum danger of spread of typhus from a louse-infested patient to other persons extends into the first two weeks of convalescence when the victim becomes ambulatory. The hazard in handling corpses within a few hours after death is obvious. Once deloused and bathed, however, typhus patients are not capable of transmitting the infection to other persons by contact: *Rickettsia prowazeki* does not occur in human saliva, sputum, urine, or feces, unless blood is also present (literature reviewed in[14,15]).

Louse control. Shortly after the role of the louse in typhus transmission was discovered, demonstrations of the efficacy of delousing in controlling epidemics of this disease were made in North Africa in 1912[14] and in Serbia in 1915.[8] It was established that effective delousing of a community stopped typhus. At that time and until very recently, the procedure for delousing required the infested persons to remove all of their clothes, which were then subjected to heat while the persons bathed. When large numbers of persons were involved, this process was very cumbersome, expensive, and time consuming. People objected to the damage done to their only garments by the heating process, particularly if moist heat was employed. Furthermore, shortages of fuel and apparatus for heating the clothing were the rule under those circumstances which fostered the outbreaks of typhus.

In addition, reinfestation of persons deloused by this method could, and usually did, occur immediately, unless very careful segregation was achieved. The conditions which predispose to louse infestation, and consequently to epidemic typhus, are shifting of populations, inadequate and temporary housing, crowding of people together, lack of facilities for bathing, and weather so cold that people tend to leave their garments on continuously day and night, for weeks or months at a time. It is obvious that under such conditions, a very efficient organization and an abundance of fuel are essential for satisfactory delousing. That this combination has been extremely difficult to obtain is grimly shown by the numerous severe epidemics of typhus which have occurred in various countries despite full appreciation of the fact that effective delousing would stop the outbreaks. More practical and rapid methods of delousing were urgently needed.

Vaccination. Following the discoverey of the etiologic agent of typhus fever, many efforts were made to develop a satisfactory vaccine against the disease. These attempts were made in the face of several obstacles. First, *Rickettsia prowazeki* does not grow in the absence of living cells; cultivation of the organism was possible only in lice, or various animal tissues. Second, vaccination with living rickettsiae of murine typhus, which appeared to be a safe procedure when applied to natives in North Africa, proved to be dangerous for Europeans.[16] Third, there was a real hazard in working with typhus in the laboratory. Several of the early investigators contracted typhus and died.

Contributions toward the solution of the problem of obtaining large quantities of rickettsiae had been made prior to 1939. Zinser and Castaneda[17] found that x-rayed rats could be used to produce murine rickettsiae in abundance. Castaneda[18] introduced the method for the preparation of murine vaccine from the lungs of rodents. Durand and Giroud[19] made epidemic louse-borne rickettsial vaccine from mouse lungs. Cox[20,21] devised a method even more practical and satisfactory by utilizing the yolk sac membrane of developing chick empryos as a growth medium for rickettsiae of various types. But, in 1939, there was no evidence bearing on the efficacy of any of the newly developed vaccines under epidemic conditions, and it was obvious that Weigl's vaccine, made from the intestines of lice,[22] was not suitable for mass production. Thus, a great deal of information was needed in regard to the recent vaccines.

Treatment. In 1939 no chemotherapeutic agents had been found for typhus. Immune serum from humans and animals had not had an impressive effect on the course of the illness. Typhus, being a disease closely associated with human misery, nearly always occurred under precisely those conditions in which the hospital facilities and medical staffs were either sorely taxed or virtually nonexistent. For this reason, relatively few studies had been made of the pathologic physiology of typhus. Indeed, the information in the classic monograph of Wolbach, Todd, and Palfrey,[23] published in 1922, had not been advanced appreciably in regard to the clinical and pathological findings in typhus.

EXTENT OF TYPHUS FEVER OUTBREAKS IN CIVILIAN POPULATIONS BETWEEN 1939 AND 1945

Having reviewed the record of typhus in order to call to mind its potentialties as a scourge, and having mentioned the principal gaps in our knowledge of certain aspects of the disease, we must agree with those who, in 1939, feared that the second World War would provide on an unprecedented scale the mass misery and famine in which typhus has always exacted its heavy toll. The figures which are available for the reported cases of typhus in certain of the countries in the war area are presented in Table 1. It may safely be assumsd that these figures contain numerous inaccuracies.

TABLE 1.—*Reported Cases of Typhus Fever For 1940 to 1945 Inclusive For Certain of the Countries in the War Areas.*

	1940	1941	1942	1943	1944	1945
England	...	...	1	...	...	26
France	...	2	230	?	11?	303
Spain	14	9,560	4,144	640	498	27
Italy	...	...	...	699†	1,215†	198
Germany	230	2,158	2,043	5,058	2,467	18,000†
Poland	12,000*	?	?	?	?	14,000
Bulgaria	155	281	709	1,843	702	979
Rumania	1,403	1,827	3,992	8,441	6,000‡	8,244
Hungary	93	652	827	1,012	3,336	?
Greece	43	7	?	99	388	697
Yugoslavia	282	86?	?	?	8,243	2,285
Turkey	716	704	427	4,234	3,121	2,700
Iran	256	115	907	12,885	6,436	826
Egypt	3,636	9,324	32,288	40,084	18,533	15,746
Tunisia	651	7,078	16,295	356?	1,007	403
Algeria	2 146	12,827	35,205	8,321	1,770	1,024
Morocco	355	1,471	25,846	16,191	2,928	8,243
China	2,191	245	369	12?	141	1,874
Japan	2	864	?	?	?	?

The figures are compiled from the United States Public Health Reports, vols. 56-61, except as noted: * League of Nations Bulletin, vol. 10, 1942-43. † U.S.A. Typhus Commission files. ‡ Reports for year incomplete.

Observers who were present during some of the outbreaks are well aware of the inadequacy of the case reporting facilities and of the unwillingness of officials in some places to admit the extent of the typhus problem in their areas. Despite inaccuracies, however, the table provides us with much information.

Several points should be emphasized. Some of the countries in which typhus had appeared each winter in outbreaks of small size before 1939 experienced large increases in the war years, for example, Morocco, Algeria, Tunisia, Egypt, Iran, Turkey, Yugoslavia, and probably Poland, although information from the areas occupied by the Germans and the Russians is incomplete.

Typhus appeared in epidemic form in a few countries usually free of the disease, notably Spain, Italy, and Germany. The cases reported for England and France occurred largely in repatriated persons who traveled to those countries during the incubation period of the disease.

A glance at the figures for the years 1940 and 1941 shows that the areas in which Allied operations occurred in late 1942 were suffering from severe outbreaks. Our troops were exposed to the risk of infection by contact with native populations. Furthermore, our forces entered Naples in October, 1943, just as that badly overcrowded and heavily bombed city was being thoroughly seeded with epidemic typhus. In the same year our troops stationed in Iran and in Egypt were exposed to the infection that was at its height in those countries.

In 1944 the operations of the Yugoslav forces which were effectively pinning down several divisions of the German army were severely handicapped by the spread of typhus not only among the civilian populations but also in the Yugoslav army itself.

In 1945 as the Allied armies reached and passed the Siegfried Line, typhus was encountered among the "slave laborers" and among the residents of the city of Cologne. Many of the German camps containing prisoners of war were found to have active typhus cases at the time the inmates were liberated. But by far the most serious situations were found in the notorious concentration camps where the Germans had assembled political prisoners as well as ordinary criminals from all parts of the continent. The incredibly horrible conditions existing in Buchenwald, Belsen, Dachau, Mauthausen, Flossenburg, and Vaihingen, to mention a few, have been described in the press and discussed in some of the war crime trials. Typhus contributed to the horrors of these camps. It is probable that more than 90 per cent of all the typhus cases in Germany and Austria in 1945 occurred among the inmates of the concentration camps. As the German armies retreated, they tried at first to take all their prisoners to rear areas, and they succeeded in transferring 1,000 inmates of the "Death Camp" near Vaihingen by train to Dachau. These prisoners were moved despite the fact that the incidence of typhus was rising sharply in the camp at the time of the transfer. In early April the military situation deteriorated rapidly for the Germans, and their attempts to complete the transfer of prisoners were less successful. A train packed with prisoners from Buchenwald took three weeks to reach Dachau, a trip of a few hours' duration in ordinary times. At Flossenberg the Germans apparently did not have any transport available whatever, and they forced approximately 12,000 of the inmates of that concentration camp to march southward; many fell by the road or were shot if they lagged behind. Discipline finally collapsed when the group was near Cham. The fugitives, many of whom were typhus-infested, scattered into the numerous small towns around Cham.

In the fact of the rapid advance of our armies, the Germans then gave up any attempt to move prisoners. After our armored spearheads liberated such places as Dachau and Mauthausen, a short interval elapsed between the removal of the German guards and the arrival of adequate number of our infantry to maintain discipline and control over the camps from the sanitary point of view. In this short interval many louse-infested, typhus-infected inmates "escaped" into the surrounding countryside. I doubt if there ever has been such a widespread scattering of typhus in such a short time as occurred in April and May, 1945, when several of these concentration camps literally exploded into the adjacent areas. In addition to the confusion created by the rapid passage of the war across Germany the situation was further complicated by the floods of persons transplanted by the Germans from the occupied countries into Germany itself for the purpose of working in the German war industries. These people were termed "displaced persons" or "D.P.'s" and their exodus from Germany created an enormous problem, especially from the point of view of typhus control. Typhus had been seeded among some of the groups of D.P.'s prior to the arrival of the Allied armies on the scene. They were further exposed to infection by contact with liberated but undeloused concentration camp inmates who were likewise seeking the quickest way home and mixing with the countless streams of displaced persons in their informal roadside camps.

In the light of this information, one wonders why the figures for the incidence of typhus in 1945 were not very much larger than those reported in Table 1, and why typhus has not been a serious problem again this winter in the same areas, only a few months after the cessation of hostilities. Those who participated in the recent developments in typhus control are convinced that the control program which was worked out by the early part of 1944 was highly effective in suppressing the outbreaks of typhus to which it was applied in Italy,[24] Yugoslavia, Germany and Austria in the zones occupied by the Allies. (What has occurred in the Russian areas it not known, since the Russians have not made available the official figures for typhus since 1938.) Before describing the new control methods, I wish to emphasize the fact that

several groups have participated actively in this recent work on typhus: the National Research Council, the medical departments of the Army and Navy, the United States Public Health Service, the United States Department of Agriculture, The Rockefeller Foundation, the United States of America Typhus Commission, the Connaught Laboratory in Canada, the National Institute for Medical Research, members of the Pasteur Institutes in Algeria, Tunisia, Morocco, and Paris, many medical officers in the British and French armies, the officials of the ministries of health in Mexico and Egypt.

DEVELOPMENTS IN METHODS OF LOUSE CONTROL

Early in 1942 two groups in America took up an intensive search for more practical methods of louse control: the entomologists of the Bureau of Entomology and Plant Quarantine of the United States Department of Agriculture, and staff members of the International Health Division of The Rockefeller Foundation. Antilouse powders suitable for application to the clothing were developed and tested in Florida[25] and also in New Hampshire.[26]

In December, 1942, the United States of America Typhus Commission was created by executive order of the President "to formulate and effectuate a program for the study of typhus fever and the control thereof, . . ."[27] In 1943 both the Typhus Commission and The Rockefeller Foundation undertook field trials of newly devised antilouse powders in Egypt,[28,29] Mexico,[30] and North Africa.[31] By the end of 1943 methods for the application of these powers had been worked out[29,31] whereby large numbers of people could be treated without removing their garments. The powder was shown to be effective when blow into the hair, up the sleeves, down the neck, around the waist into trousers.

The first antilouse powders had pyrethrum as one of the principal ingredients. Such powders had certain disadvantages. The supply of pyrethrum was limited, and the effect of the powder containing it was of relatively short duration. There was, therefore, an urgent need for a synthetic substance, easy to manufacture, safe to use on human skin, and long lasting in its effect as an antilouse powder. The now famous insect killer, DDT, dichloro-diphenyl-trichloroethane,[25] proved to be nearly the ideal substance. It had been synthesized by a German student in 1874, but its usefulness was not appreciated until a Swiss firm discovered its insecticidal properties. Wiesmann of the Swiss Agricultural Experiment Station in cooperation with this firm, demonstrated that DDT could be used for the control of certain agricultural pests and houseflies.[32] In 1942 the American branch of this company received a sample of DDT as a spray called Gesarol Insecticide. The material was promptly sent to the United States Department of Agriculture, whose entomologists elucidated the remarkable destructive effect of the compound on lice.[25] The Food and Drug Administration of the National Institute of Health carried out toxicological tests and gave the verdict that the material was safe for use as a powder. Although the manufacture of DDT involved some critical materials and equipment, shortly several plants were producing large amounts for the use of the armed forces. The most satisfactory property of DDT is the persistence of its lethal effect on lice for more than two weeks when dusted into the garments, or for several weeks when impregnated from an emulsion. Reinfestation of dusted persons exposed to louse-infested persons was reduced to a negligible degree by this persisting effect of DDT.

The final improvement in delousing technique was the development by the Army of an air compressor which operates ten dust guns simultaneously. These devices are called power dusters. They use gasoline for fuel and are very simple to operate. By employing power dusters it was possible to delouse more effectively the streams and floods of displaced persons who were pouring out of typhus-infected areas in Germany and Austria as our armies liberated them. The power dusters were placed on the east bank of the Rhine River at the pontoon bridges where the displaced persons were crossing; they were taken by truck to the concentration camps, to the displaced persons centers, to the prisoner of war camps, and to the villages in southern Germany where secondary cases of typhus were found.

The results of this vigorous delousing campaign were highly gratifying to those responsible for typhus control in the European theater. Relatively few persons crossed the Rhine barrier into Western Europe without being deloused with DDT, despite the suddenness with which many millions of persons had to be processed. They many typhus outbreaks all over Germany were promptly handled, and secondary cases in these foci were remarkably few. I believe that this reflects great credit on those who were responsible for the excellent way in which the typhus control program was organized. That the necessary supplies were present on the scene in adequate amounts is likewise a tribute to their foresight and persistence. They made possible this demonstration that typhus can be controlled quickly under very adverse circumstances by skillful organization in the application of the new methods of delousing. However, there may yet be severe outbreaks of typhus before the war-torn areas have returned to a more normal state of affairs if the authorities who are responsible for public health in occupied areas do not remain fully alert to the danger of typhus and do not provide adequate amounts of typhus control supplies wherever the need for them may arise.

The yolk sac typhus vaccine devised by Cox was taken to Bolivia and to Spain in 1941 in attempts to evaluate it under epidemic conditions,[33,34] but these trials were without conclusive results. Several cases of typhus had occurred among physicians who had been vaccinated and exposed to the disease

in the laboratory. It seemed probable that their illnesses had been made less severe by the vaccine, but further improvements were sought. To this end it was decided to increase the rickettsial content of the vaccine and to introduce certain changes in the methods of preparation intended to improve the potency and facilitate large scale production.[35,36] In addition to these changes a much more satisfactory method for potency testing of typhus vaccines was introduced in 1942.[36] The very difficult feat of producing millions of doses of Cox type vaccine was accomplished in a relatively short time by several of the commercial firms under contract with the government.*

Thus a prodigious amount of typhus vaccine was made available for the first time. There was enough to immunize all of our troops who were sent to areas where they might be exposed to epidemic typhus, and to administer booster doses at proper intervals while the danger of exposure existed. There was enough to permit distribution for use in the armed forces of our Allies and for use in civilian populations in certain of the danger zones.

The value of Cox type vaccine was demonstrated in the study undertaken by the United States Typhus Commission in cooperation with the Egyptian Ministry of Health in Cairo in 1943. There were 40,000 cases of epidemic typhus in Egypt in 1943, and several thousand patients were admitted to the Cairo Fever Hospital. Many new employees were added to the staff to handle this large increase in patient population. Typhus in previous years had been characteristically severe among the Fever Hospital employees, and those who contracted the disease in 1943 and 1944 without having been vaccinated were likewise severely stricken. Most of the employees, however, were vaccinated by the Typhus Commission in that period. It should be stressed that these employees were exposed to typhus not only in their hospital duties but also as residents in the areas of Cairo where the typhus attack rate was high. There were 61 cases of typhus among the vaccinated employees in the two seasons, and of this group only one patient died, a man whose first dose of vaccine was given just three days before the onset of illness. Those who had had their vaccine more than 21 days before the onset of illness had mild, uncomplicated typhus of short duration.[37] From these observations made under actual epidemic conditions, it thus appeared that Cox type vaccine of acceptable potency practically eliminated the mortality from typhus fever and rendered the illness mild and of short duration.

There is another important aspect of typhus vaccine from the point of view of the possibility of spread of the disease in a louse-infested community. The lice which feed on patients who contract typhus after a course of typhus vaccine develop very few rickettsiae in comparison with lice from unvaccinated patients. Persons who have had booster doses infect their lice only rarely or not at all.[38,39,40] Thus vaccination of a community undoubtedly will reduce the potentiality for spread of the disease by lice.

In addition to the studies in the Cairo Fever Hospital the experience of our armed forces contributes some evidence for the effectiveness of Cox vaccine. I have already called attention to the high incidence of typhus in the regions into which our armies were sent between 1942 and 1945. Official figures have not been released by the War Department, but I am permitted to say that there have been fewer than 100 proven cases of classical epidemic typhus fever in our armed forces during the second World War. There have been no deaths from typhus among our forces, and indeed no authentic record has come to our attention of a death from typhus after Cox vaccine, administered more than 21 days before the onset of illness. In contrast, we may point out that 200 cases of proven typhus in the British forces were mentioned by van Rooyen,[41] and 21 cases with seven deaths were described by Stevens.[42]** These reports refer to the period before general antityphus vaccination was adopted by the British forces.

It seems safe to assert on the basis of the information now available that Cox type vaccine when properly prepared and administered will reduce the mortality from typhus to a negligible point, will lessen the severity of the illness greatly, and should decrease enormously the possibility of typhus attaining epidemic proportions in a thoroughly vaccinated community.

DEVELOPMENTS IN THE THERAPY OF TYPHUS FEVER

Developments in the therapy of typhus have been made in two directions: first, as regards a better understanding of the pathologic physiology of the disease, and second as regards specific sero- or chemotherapeutic agents. In the first category belong the observations on the presence and importance of azotemia in typhus fever.[43,44] It was noted as long ago as 1862 that the blood urea nitrogen was increased in typhus fever, and several reports are in the literature confirming this finding. By careful observation of the patients on the Typhus Commission ward in the Cairo Fever Hospital during three seasons it has been possible to advance our understanding of this phenomenon.[43,45] It was apparent that the development of renal insufficiency was one of the earliest indications that the course of the illness would be very severe or even fatal.

* Cox himself played an important role in this respect.

** When this article was in preparation, the following statement appeared: "In the winter and spring of 1942-43 typhus was epidemic in North Africa and there were hundreds of thousands of instances of the disease in the civilian population. Among American Army personnel who had been immunized and reimmunized with the Cox type of typhus vaccine only two mild cases of the disease were recorded in the first four months of 1943, while during the same period in a comparable group of Allied troops among whom vaccination was not initiated until the end of February or the first of March, 1943, a total of 43 cases were recorded, with a case fatality rate of roughly 30 per cent." Long, P. H., J.A.M.A., 130:985, 1946.

Several factors may participate in the development of renal insufficiency in typhus. There may be damage to the kidneys produced by growth of rickettsiae in those sites. A rapid drop in systolic blood pressure of a few hours' duration or longer may initiate serious changes in the kidney as a consequence of reduced renal blood flow in the period of hypotension. Severe dehydration may exaggerate the situation. It is difficult to evaluate these factors individually. They are not all uniformly present in the patients who develop renal insufficiency, but by directing supportive measures to reduce their influence as much as possible, the patients may be appreciably benefited. For example, careful attention to the fluid intake and output makes it possible to reduce the extent of dehydration and to assure an adequate urine volume. The drop in systolic blood pressure which is of such serious prognostic import may be attacked by prompt administration of plasma intravenously.

In the other category, that of specific therapeutic agents, a considerable list of substances received attention in the war years. I shall mention just a few of these, and then discuss in some detail the one which seems to me to offer the most promise at present in the treatment of typhus—the chemical, para-aminobenzoic acid.

Hyperimmune refined and concentrated antityphus rabbit serum, prepared in the same way that the antipneumoccocus rabbit serum was produced,[46] was administered to typhus patients in Egypt[42,47] and in Germany.[48] In the first few days of illness large amounts of serum seemed to modify the course of the infection, but the effect was less striking in patients who had been sick nearly a week.

An antimalarial drug called sontoquine was used in typhus by French physicians who felt that it exercised a beneficial influence on the clinical picture.[49] The Germans were impressed by the drug called rutenol, which is a combination of a nitroacridin derivative and arsinic acid.[50] The English workers found a drug, para-sulphonamidobenzamidine, which had strongly antirickettsial effects in experimental typhus, but the clinical trial was disappointing.[51,52] Penicillin was found to have some antirickettsial activity in experiments with eggs and mice,[53] but a thorough clinical trial was not carried out on typhus patients. Toluidine blue and a drug called forbisen were shown to be of some value against experimental typhus,[54] but these substances were not given clinical trial. The common dye methylene blue was found by three groups of workers to possess activity against rickettsiae of tsutsugamushi disease,[55,56,57] and when given in large amounts, against typhus also.[55] Clinical trial in Burma by a United States Navy group indicated that methylene blue was difficult to give in adequate amounts by the oral route. Despite its toxicity it seemed to be of benefit by the intravenous route.[58]

The substance which seems to offer promise in the treatment not only of typhus but also of tsutsugamushi disease and perhaps Rocky Mountain spotted fever as well, is para-aminobenzoic acid, which is referred to as PABA. The effect of this substance in experimental murine typhus was first noted in 1942 in The Rockefeller Foundation laboratory in New York City.[59] Its activity was independently discovered in 1944 by Greiff, Pinkerton, and Moragues.[60] PABA was given to patients in Egypt[61] in 1943, 1944, and 1945. In Germany it was used in an attempt to alleviate the severity of the typhus outbreak at the concentration camp at Dachau in 1945.[48] PABA was shown to be effective against experimental tsutsugamushi disease[62,63] and in a clinical study in Burma.[64] In 1945 workers in Texas[65] and in the Army Medical School[66] found that PABA has activity against spotted fever. One human case of proven Rocky Mountain spotted fever has been treated with therapeutic amounts of PABA with apparent benefit.[67] Thus this agent seems to have possibilities for the treatment of at least four different rickettsial infections of man. It now has been given in large amounts to more than 100 patients and appears to be entirely safe for human use.[68] Precautions are taken to follow the white blood cell count, which tends to be depressed by the drug, and to measure the pH of the urine at frequent intervals. It is important to adjust the intake of bicarbonate to keep the urine neutral or alkaline in reaction to prevent formation of crystals of PABA in the kidneys. Experimental evidence suggests that larger concentrations of PABA are required for an effect against tsutsugamushi disease than for typhus.[69] Rocky Mountain spotted fever may be found to respond to smaller concentrations than typhus,[66] although that should be labeled as speculation at this time.

PABA seems to arrest the progress of typhus and to permit the immunity mechanisms of the host to deal with the rickettsiae. Direct contact of the organisms with the same concentrations of PABA which are attained in the blood of patients has no apparent effect on either the viability of the rickettsiae or on their toxic properties.[69] It seems probable that PABA acts by inhibiting the multiplication of rickettsiae inside the cells. Whether it affects primarily the chemical processes in the cytoplasm of the host cells or whether it interferes with the processes which take place inside the rickettsiae themselves is not known.

There is no evidence that PABA will benefit patients who have been ill longer than seven days at the time treatment is first started. When treatment is started before the end of the first week of illness there seems to be a significant correlation between the duration of fever and the incidence of complications on the one hand, and the length of time between onset of illness and beginning of treatment. It is very difficult to make a diagnosis of typhus definitely before the appearance of the characteristic rash on the fourth or fifth day. In using PABA the effort must be made to start administration of the drug as soon as the diagnosis of typhus is suspected or established. A more thorough appreciation of the value and limitations of

PABA as a therapeutic agent must be derived from more extensive clinical experience.

SUMMARY

In the past typhus fever has been one of the most feared of the epidemic diseases associated with wars and human misfortunes. In the second World War several new methods of controlling the disease were applied successfully to the outbreaks in Italy, Yugoslavia, Germany, and Austria. In the technique of delousing, a method has been developed for application of antilouse powder directly to the clothes of louse-infested persons, without requiring them to remove their garments. The chemical DDT has been applied on a large scale and has been found to be safe and effective as a delousing agent. Power dusters using DDT powder have greatly increased the efficiency and the scope of the delousing process. Vaccine of the Cox type has been produced in huge quantities and has been used successfully by our armed forces. Our information bearing on clinical aspects of the disease has been advanced, and a new drug, para-aminobenzoic acid, has been found to offer promise in the treatment not only of typhus fever but of other rickettsial infections as well.

The conclusion may be drawn that our knowledge of typhus has been extended in several fields and that, if our information is properly applied in the future, classical epidemic typhus fever will not cause the suffering and loss of life which it did in the past.

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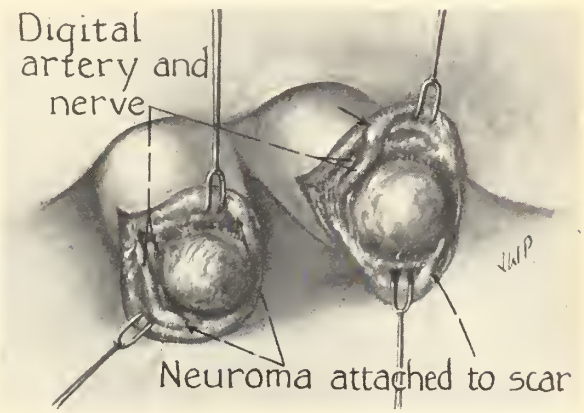
Immediate Management of Amputations Of the Hands, Feet and Digits*

Comdr. G. B. O'Connor (MC). U.S.N.R.

THE hands, feet and attached digits are our instrumentalities of motor expression and locomotion, so it behooves us to direct our attention to the immediate care of injuries to and the reconstruction of these all-important members.

Amputations, whether partial or total, of any of the parts herein discussed should not be done unless: 1. The damaged tissue is jeopardizing the patient's life; 2. There is absolute loss of blood supply to the part; 3. There is severe irreparable damage of bone, tendons, nerves and blood supply that would result in functional loss.

The immediate care of traumatized hands, feet or digits that will require amputation is essentially the same in civil and military life. Hence there are a few generalities that are applicable to practically all cases.



Digital nerves incorporated in scar. Neuromata formation on ends. At primary amputation nerves should be cut short and ends buried in fat.



Partial amputation of right thumb with the bone and tendon exposed.

In dealing with severe hand, feet or digit injuries that require amputation, efforts should be directed first toward combating shock, alleviating pain and establishing complete hemostasis.

A survey of the damaged part is then made, keeping uppermost in mind the conservation of tissue for the eventual return of the injured members to their most useful function.

Strict atraumatic technique should be employed at all times with all its minute details such as:

1. The use of the blood pressure tourniquet.

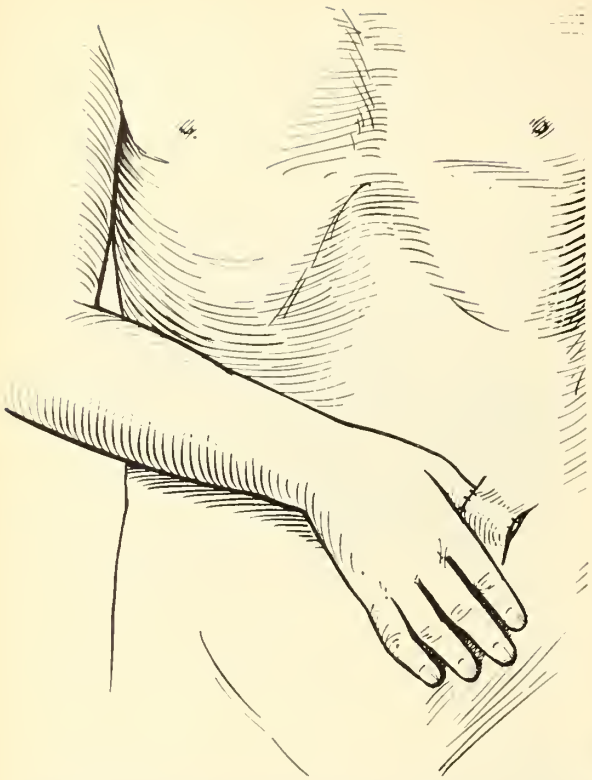
2. The gentle sterile preparation of the field, using aseptic precautions: cleaning the field with soap and water, normal saline irrigations, ether and, when necessary, benzine. All other antiseptics are of little avail, causing only chemical necrosis or irritation when used.

3. The gentle handling of all tissues with a minimum amount of fine ties applied to specific bleeding points.

* Read at the Second General Meeting of the Seventy-third Annual Session of the California Medical Association, Los Angeles, May 7-8, 1944.

All damaged tissue that will necrose should be completely excised to prevent the formation of a pablum for bacteria and thus promote early healing.

In dealing with the individual structures, the vessels should be tied, the nerves then severed with a razor and the ends buried in adjacent soft tis-



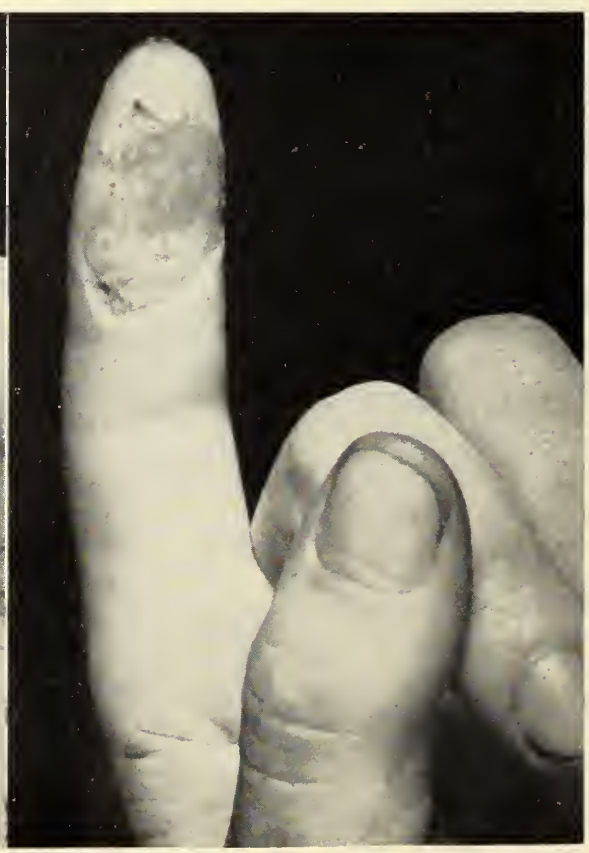
Wound debrided and thumb sutured immediately into a prepared flap in abdominal wall.



Final result with replacement of the thumb pad.



Amputation of soft tissue of index finger.



Two weeks after immediate application of split thickness graft.

sue. The tendons should be cut and permitted to retract at will. They should not be sutured over the bone ends, for they will fibrose, give a painful stump and seriously interfere with function. The bones should be properly smoothed and rounded.

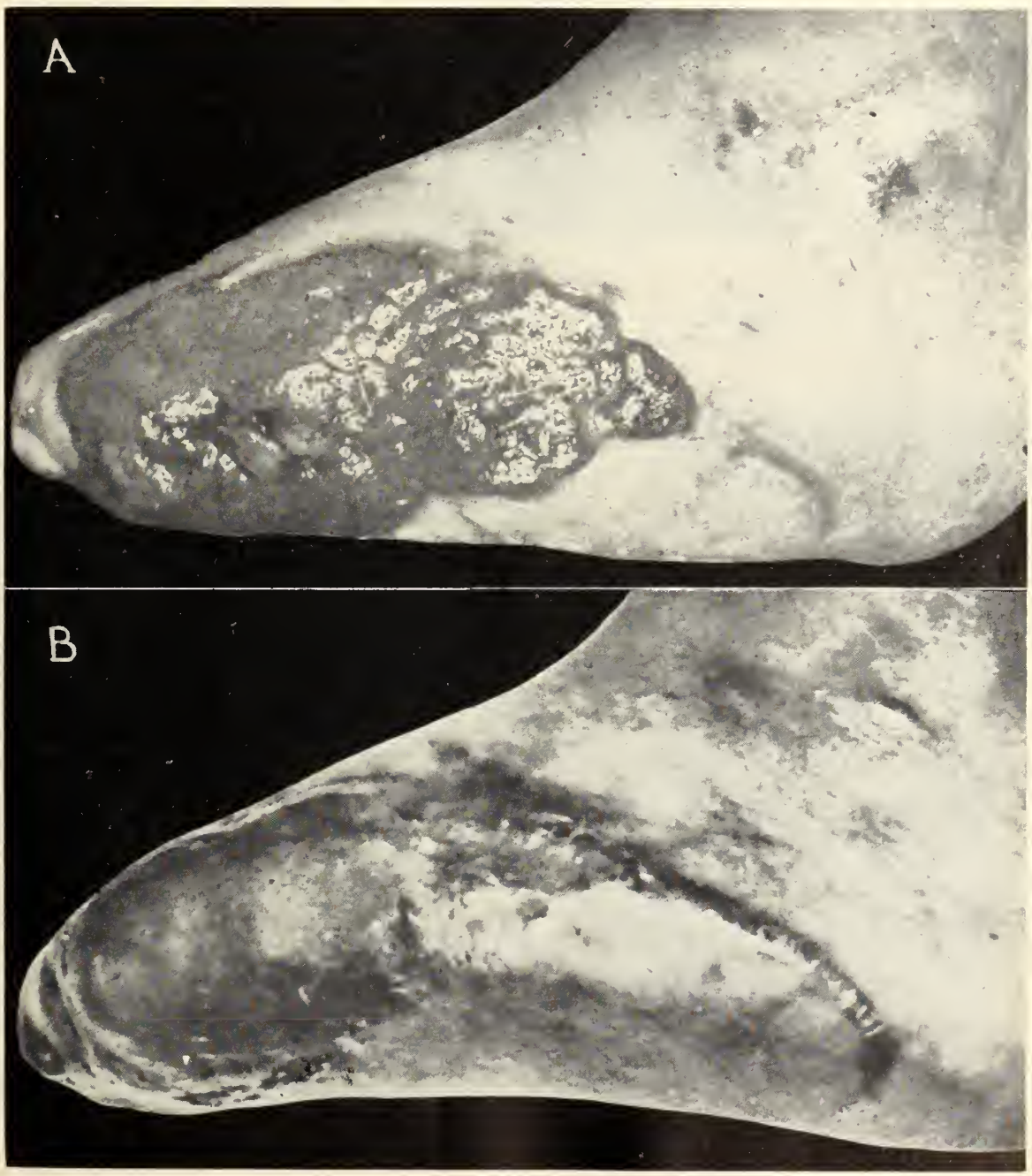
The adjoining skin should then be closed without tension, thus providing the ideal covering. If skin closure cannot be properly done, immediate coverage of the existing defect should be performed by means of a selected type of graft, thus converting a compound wound into a simple one.

If only the soft tissue is exposed, a thick split graft is the covering of choice. If the bones, tendons or even in some cases the nerves are exposed, a full thickness flap of skin and fat is necessary. If this is not available in the vicinity, then one usually resorts to the universal donor area — the abdomen — for some type of flap.

The Wolfe and Reverdin grafts are mentioned only to be condemned, because at this stage of repair work they are contraindicated.

The postoperative care of these cases is simple, but important.

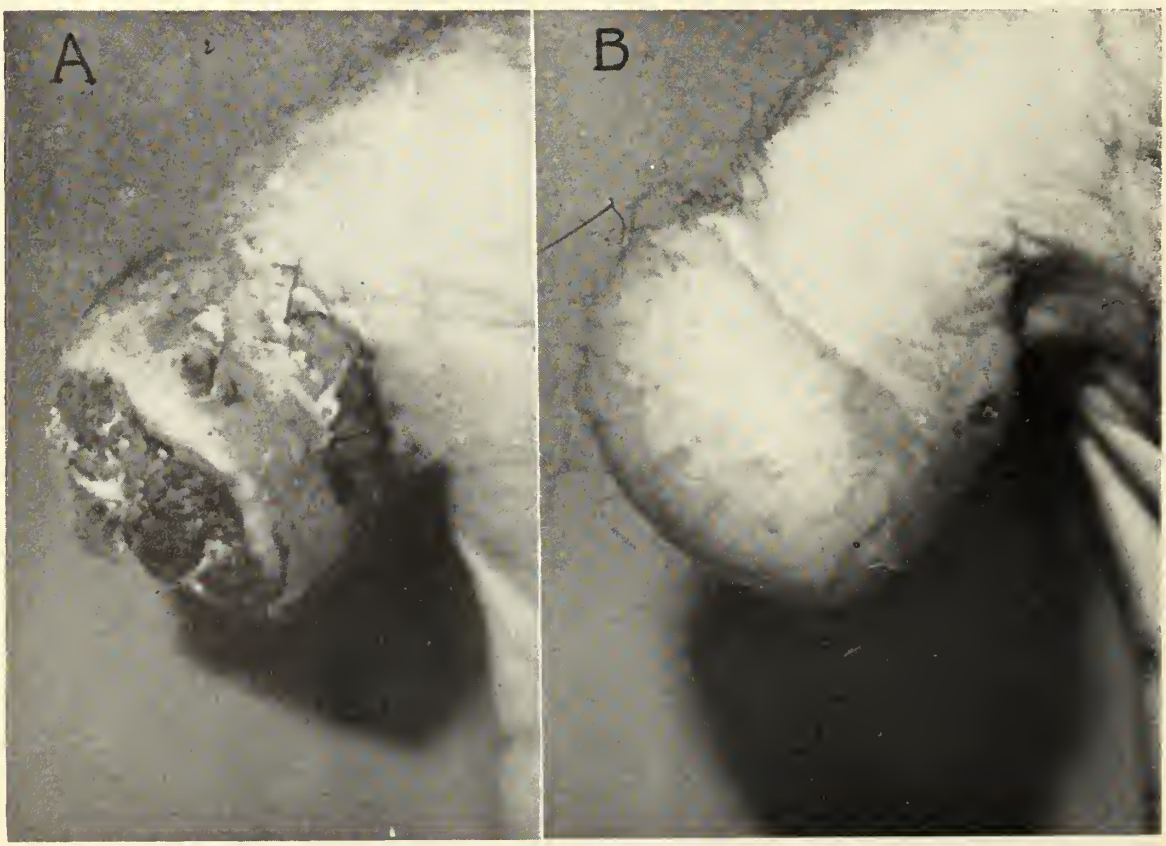
1. All potentially infected cases should be given an immediate course of sulfonilamide therapy, prophylactic gas and tetanus anti-toxin and penicillin.
2. The injured member should always be elevated and functionally splinted.



A.—Partial traumatic amputation of the foot two weeks after injury. B.—Thick split thickness skin graft giving a usable foot without additional amputation.



A.—Traumatic amputation of fingers with immediate cover age by an abdominal flap. Ten days after severance of abdominal pedicle. B.—The thumb and fifth finger have been freed and reconstructed. The stump of the Index, middle and ring fingers are very short and are used as a mitten.



A.—Amputation of distal phalanx of thumb. Joint exposed and loss of covering material. B.—Bipedicle abdominal flap applied to defect to save all possible thumb length.

3. The patient's general and local condition must be watched closely and masterful inactivity employed so far as the dressing is concerned. Dressings, unless for some contra-indication, should not be changed for seven days.

Following the active repair, the structures should be splinted in a position of function. This is most important, as the grafts and underlying structures then will be in the optimum position for a full range of motion or, in event of ankylosis, in the most serviceable position. Proper splinting reduces pain, eliminates swelling and accelerates early functional healing.

In reconstruction of the hand, foot or digits there are many plastic procedures that are most useful for:

1. The removal of adhered scars and neuromata.

2. Applications of grafts with fat pads over painful bony protuberances or contracted areas.

3. Total or partial reconstruction of the thumb and fingers.

It is obvious that certain conditions militate against primary closure:

1. If it is not possible to prepare the part properly and follow the case for a reasonable time.

2. If, in a case of severe multiple body wounds, the digital injuries are of secondary character.

3. If, due to shock and hemorrhage, immediate repair is not possible.

4. If a long period of time has elapsed since the original injury.

In such cases, primary suture should not be done, but all viable tissue should be preserved and an early secondary closure or grafting should be performed.

Emphasis should be placed on all possible conservation of tissue of the hands, feet and digits. Only that which will obviously necrose should be discarded. Wherever possible, even small parts of digits and extremities should be saved. Ruthless amputation is to be avoided, for every digit is important. No part should be sacrificed merely because to save it would present a difficult problem of closure.

The thumbs and index fingers, the great toes, the heads of the fifth metatarsals and the heels are structures of such prime importance to one's physical and economic well-being that every effort to salvage them should be made.

Primary Treatment of Open Wounds of the Hand*

John E. Kirkpatrick, M.D., *San Francisco*

Among the most common wounds which occur in civil and military life are wounds of the hands. Neglect of seemingly trivial wounds often has disastrous consequences. Many people with superficial injuries will not seek medical attention unless complications arise. Immediate gentle cleansing of these wounds with soap and water has been found to be the most effective prophylaxis of wound infection, a principle which should be promoted for home and emergency room first-aid instead of harmful chemical antiseptics.[7,11,14] Beyond this group of superficial common injuries, almost every open wound of the hand constitutes a surgical emergency unsuitable for office or emergency room care. These injuries demand priority for surgical treatment and hospital care at any time of the day or night.

When the injured patient is first seen, the open wound is immediately protected from further contamination with a sterile dry dressing bandaged so as to control bleeding. Accurate diagnostic procedures are instituted, which include x-ray films, examination of the skin for loss of sensation, and specific tests of motion of the intrinsic muscles and each of the digits. The wound is not probed or peeked into in an attempt to see the extent of damage. The most inadequate test is to inquire if the patient can wiggle the fingers, since remaining supplemental motions are misleading. In late repair of hand injuries it is not unusual to find a divided median nerve sutured to an adjacent divided tendon; such a crippling error must be assessed primarily to failure to think of nerve injury in hand and wrist wounds, and secondarily to a superficial appraisal of loss of skin sensation and intrinsic muscle function, together with a lack of understanding of the surgical anatomy. The ultimate functional result which may be achieved depends largely upon the accuracy of the preoperative diagnosis.

When the patient reaches the hospital operating room, and when diagnostic tests are complete, adequate anesthesia is induced, general anesthesia being preferred to local anesthesia since a successful repair depends on relaxation of the hand and the patient. The surgeon and attendants, properly gowned, and scrubbed, with their noses and mouths covered by masks, may then proceed with the operation, which in most instances is a major surgical procedure.

CLEANSING OF WOUND

A bloodless field is produced by first wrapping the injured hand and forearm with a sterile elastic bandage, rubber or bias cut stockinet, up to within two inches of a blood pressure cuff bandaged on the arm. The bloodless field is maintained by inflating the cuff to 300 mm. of mercury. Each tube of the cuff is doubly clamped with rubber

* Presented as part of a panel discussion on Surgery of the Hand at the Seventy-fifth Annual Session of the California Medical Association, Los Angeles, May 7-10, 1946.

sheathed clamps so as to prevent any possibility of slow leakage. The elastic bandage which produced the primary ischemia is then unwound and removed.[1] The preliminary dressing is removed and the wound is again covered with a sterile dressing. Cleansing of the skin around the wound with soap and sterile water is followed by careful, gentle cleansing of the wound itself with cotton or gauze pads, bland soap and sterile water, followed by a final irrigation with warm sterile salt solution.[11,14] This preparation has proven eminently satisfactory in transforming a contaminated wound into a clean one. The operative field is redraped and if the surgeon and assistant cleansed the wound, a change of gowns and gloves is performed.

The next approach to the wound is a continuation of the process of mechanical cleansing which entails the meticulous excision of devitalized tissue accompanied by irrigation of the wound with warm sterile salt solution. All possible viable tissue is retained, since there is practically no structure of the hand that can be needlessly sacrificed. This procedure requires gentleness and patience, attention being directed to the preservation of intact structures. In order to repair the divided structures in certain small wounds, it may be necessary to enlarge the wound by incisions placed so as to convert the original wound into a zigzag and to make additional appropriate incisions at a distance from the wound. In such cases, median longitudinal incisions are never made in the fingers, nor are flexor creases bisected at right angles in the fingers or palm.[1] Each of the structures determined to have been injured at the time of the preoperative examination is definitely located. The success of primary repair depends on making secure the anatomical approximation of each divided structure so that physiological repair can take place in a closed wound free from contamination and devitalized tissue with a minimum of foreign-body suture material embedded within the wound.

Most divided blood vessels can be identified and ligated with No. 00000 plain catgut before blood is allowed to return into the hand. If the operation is not too prolonged, the blood pressure cuff is not deflated and removed from the arm until after the nerves and tendons are repaired. After removal of the cuff from the arm, which prevents venous stasis, a period of firm pressure, usually for five minutes or until the transient hyperemia subsides, usually controls capillary oozing. Vessels which continue to bleed are ligated. Fascia and skin closure is then effected, usually with Nos. 34 and 36 stainless steel wire.

REPAIR OF TENDONS

End-to-end suture of divided nerves is performed with interrupted No. 000000 or No. 0000000 arterial silk placed through the nerve sheath only. Tantalum foil is never used to surround the site of a nerve repair, since it produces ischemia and excessive fibrosis inhibiting nerve regeneration.[2]

Flexor tendons are approximated end-to-end, using No. 34 stainless steel wire suture placed "at a distance" with a "pull-out" suture, which prevents muscle action at the tendon juncture. The ends of the wire tendon suture are brought out through the skin and tied over a button with just enough tension on the tendon to approximate the distal and proximal ends. One double right-angle suture of fine arterial silk may be placed through the opposed tendon ends to maintain exact approximation.[1] Where the juncture occurs in a digital sheath, an adequate slit is made in the sheath, or a segment of the sheath may be excised to permit free excursion of the tendon which, during the healing process, becomes thickened at the site of repair. The steel suture is cut off below the button in three weeks and removed by means of a "pull-out" wire. Guarded active motion is first started at this time and gradually more forceful active motion is allowed after another week. Then, active, purposeful, supervised exercises are instituted to restore function.[10]

OPENINGS IN TENDON SHEATH

It has been our observation that primary suture of the flexor tendon in a finger distal to the midflexor crease gives satisfactory results and, often, complete return of motion if these principles are applied with an atraumatic technique. In the proximal segment, only the profundus tendon can ordinarily be successfully repaired, and it is usually necessary to excise the sublimus tendon from the proximal phalangeal compartment in order to prevent adhesions between the two tendons and to make room for swelling of the tendon juncture during healing. Here again it is necessary to make a sufficient opening in the tendon sheath to accommodate the excursion of the tendon juncture. In the palm, a lumbrical muscle is used, without disturbing its function or continuity, to surround the site of anastomosis of a profundus tendon, thus preventing adhesions to its adjacent sublimus tendon.

In the repair of an extensor tendon on the dorsum of the hand or fingers, a figure-of-eight No. 34 stainless steel wire is placed through the skin and tendon and is withdrawn in three weeks.[1] Protective splinting is maintained for an additional one or two weeks for extensor tendons.

Where immediate repair of divided structures of the hand can be definitely performed, there must be sufficient viable skin to effect a complete wound closure. If skin loss is so great that the wound cannot be closed, a skin graft or pedunculated flap is used to effect wound closure.[3,4,13] In this type of wound fractures are reduced, tendon repair is performed, and divided nerves may be repaired or identified with a stitch of fine wire. Where primary healing is not anticipated, immediate tendon and nerve repair is usually delayed until complete healing of the wound is accomplished.

After skin closure, the wound is covered with one layer of sterile fine meshed gauze impregnated with a bland emollient. A large amount of sterile fluffed gauze or mechanic's waste is applied in such a way that, with the application of a bias cut stockinet bandage, gentle pressure is distributed evenly to the wound, maintaining the fingers and thumb in the position of maximum function. A

slab of plaster is applied over this dressing to splint the wrist and fingers in a position that relaxes the injured nerves and tendons during the stage of healing.

TREATMENT OF BURNS

Burns are open wounds and primary treatment follows the principles already outlined for other wounds: Gowns, gloves, and masks for the surgeon and attendants; gentle cleansing with soap and water: the application of a fine mesh, sterile, grease gauze dressing, followed by sterile pressure dressings with immobilization in the position of maximum function. All treatment is devised to prevent contamination of the wound, aseptic precautions being followed during the primary surgical treatment and subsequent infrequent dressings.[5]

General measures to combat dehydration in severe burns are instituted on the basis of the findings disclosed by measurements of plasma volume, red cell mass, interstitial fluid volumes, and plasma protein concentrations. Later, as hemodilution takes place, any progressive loss of red cell volume is corrected by whole blood transfusions. Penicillin may hold infection in abeyance until the initial shock phase is passed so that an early excision of debris may be performed.[8]

Dermatome skin grafts are recommended as soon as possible after necrotic areas have been excised in order to obtain early primary healing. Dry dressings and penicillin are recommended for rapid preparation of the burned areas for skin grafting.[9] This method permits earlier reconstructive work to be performed by the plastic surgeon.

MULTIPLE STRUCTURAL INJURY

Mangled hands require the greatest exercise of restrained, conservative, surgical skill so that no viable structure is ruthlessly amputated during primary surgical treatment. This applies equally well to complex wounds of the thumb and fingers where immediate formal flap amputation might seem expedient. Saving length by debridement of only devitalized tissue is paramount, followed by immediate skin grafting to cover these stumps, thereby securing a closed wound.

Open fractures require the application of all the surgical principles already described plus maintenance of alignment of the fracture with elastic traction applied in such a way that the position of function is preserved.[15] If a great loss of covering tissue has occurred so that the wound cannot be closed, the use of a pedunculated flap or skin graft makes it possible to transform an open wound into a closed wound at the primary operation.

PUNCTURE WOUNDS IN TENDON SHEATH

Puncture wounds over flexor tendons, particularly in the creases of fingers and thumb, are potentially more dangerous than in other parts of the hand.[6] For these injuries, immediate hospitalization, parenteral penicillin and voluminous moist warmed dressings offer the greatest hope for prevention of the wrecking effect of infection of the serous lined digital tendon sheaths and palmar spaces. One should not be lulled into a state of unsuspecting security by such treatment. Instead, an active attitude of constant vigilance must be maintained to detect the first sign of tendon sheath infection. If this disastrous thing should develop, immediate appropriate incisions should be made in the finger by a lateral approach to the tendon beneath the digital nerves and blood vessels with slitting of the sheath throughout the extent of its fibrous portion, and in the hand and wrist, incisions are placed so they enter only the infected space and do not bisect flexor creases or divide nerves.[1] Delay in relieving pressure on a swollen tendon always ends in necrosis of the tendon. The infection may be controlled by the treatment, but swelling of the tendon in its constricted surroundings results in aseptic necrosis and freezing of the tendon within its sheath.

Definite evidence collected during the recent war proves that sulfanilamide and other chemicals have no place in the local treatment of open wounds.[12] The War Department has expressed its attitude as follows: "Experience in wound management justifies the abandonment of local use of any chemical agent in a wound for its supposed antiseptic effect in the prevention or treatment of infection. The practice of routine local application of crystalline sulfonamides to wounds as an emergency aid measure and prior to initial wound surgery will be discontinued."[16]

Frequently there arise complicated open wounds of the hand which after thorough diagnostic appraisal will necessitate the services of a surgeon who is especially skilled in this work. With our present developments in speedy air transportation and relatively rapid ground transportation, the patient may be transferred to a distant center for definitive primary treatment. The "golden hours" for primary repair of open wounds in selected cases may now be extended up to 24, and in certain instances, even to 36, by the use of large doses of parenteral penicillin every three hours and oral sulfadiazene. If this program is selected, active treatment of shock, primary cleansing of the wound, and the arrest of active bleeding followed by a pressure dressing should be performed under aseptic conditions, in a hospital, before the patient is transported. Nursing care may be necessary during transportation to manage the medication and look after the general welfare of the patient. A prophylactic dose of 3,000 units of Tetanus antitoxin or a dose of Tetanus toxoid should not be overlooked.

If, in the judgment of the consulting surgeon, a late primary repair should not be attempted, no harm will have been done by the temporary treatment, and the opinion of the consultant is valuable from the standpoint of preservation of function.

Discussion by STERLING BUNNELL, M.D.

This paper covers the subject well. One might emphasize the importance in primary treatment of very thorough excision, or debridement, and of covering over all vulnerable parts such as joints, bones, tendons and nerves. This saves much expense and disability as do, also, formal secondary closures as learned in the last war.

Tendons may be primarily repaired in early, clean wounds. This is successful in most parts of the hand and

forearm, but the results from suture of the flexor tendons between the distal palmar and the middle finger creases are poor the world over. This can, however, be successful if several details are observed. One is to slit the pulley so the tendon can swell at its juncture without its ischemic necrosis. The sublimis tendon, whenever severed in this area, will adhere to the profundus if it is not removed. Another is to refrain from suturing with silk as it causes adhesions. Instead, stainless steel wire is used as it is the least irritating. It need be placed in only one of the tendon ends as only one is active, the other being passive. Still another precaution against causing adhesions is to place the suture at a distance, namely, in the tendon in the palm, bringing it out the skin at the distal end of the palm to be fastened to a button. In three weeks the wire is withdrawn leaving no suture to irritate. When all these points are observed, there will be the least chance for adhesions and good results will be obtained.

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Infection of the Hand, with Evolution of Chemotherapy*

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"EVOLUTION" can best be defined as the growth and development in complexity of a subject. As one views the literature on chemotherapy, the word "confusing" should also be added to the definition. In this brief discussion an attempt will be made to present the basic known facts about the two principal chemotherapeutic agents—the sulfonamides and penicillin—and then to discuss "Infections of the Hand" and relate how these chemotherapeutic agents can be used in the treatment of such infections.

The various points on which there is practically general agreement are as follows:

1. The sulfonamides modify the invasive effects of infections due to hemolytic streptococci, pneumococci and meningococci. They increase the "lag" period by inhibiting the growth of organisms. When used locally, it has been shown that they produce more induration in wounds and more hematomata. It has been shown in Meleney's[3] series that they do not lower the incidence of infection in wounds nor do they delay the development of infection. It has also been shown that they do not eliminate the infecting organisms. They are least effective when the local conditions such as traumatized tissue and length of time following injury favor infection. It is now agreed that systemic use of the sulfonamides will do everything that local use of them will do without disadvantages such as increased induration and hematomas in the wound.

2. Penicillin is a chemical produced by a mold which is active against staphylococci and gram-positive organisms in general. It apparently has few toxic effects and is effective if the circulation of the blood can reach the focus of infection. It apparently does not permeate serous or endothelial-lined cavities well and is inactivated by gastric juice. It is less effective in the presence of necrotic tissue and also less effective when the infection is due to mixed organisms.

Briefly then, the sulfonamides are bacteriostatic (prevent the spread of infection but not local infection), are most effective against streptococci, and their use is not indicated locally except to prolong the "lag" period. Penicillin, on the other hand, is not toxic, is effective only if the blood stream can reach the focus, and in any present available form is not effective enough by mouth. Both the sulfonamides and penicillin lose some of their effectiveness in the presence of tissue destruction and under conditions where the local changes in the wound favor infection.

Infections in the hand are predominantly due to staphylococci. Grossmark,[2] in a series of over 100 infections of the hand, found in 36 pulp infections that all were due to staphylococci; of 32 paronychias, 28 were due to staphylococci; in 23 web infections, 14 were due to staphylococci; in nine

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tendon sheath infections, six were due to staphylococci.

Infections of the hand are characterized by the destruction of tissue, partly the effect of the type of organism commonly causing the infection (that is the staphylococcus), but also as a result of another factor; namely, ischemia. The latter results from infection occurring in closed spaces and in tendon sheaths where swelling in channels beneath unyielding ligaments and pulleys produces an ischemia and a consequent death of the tissue from the ischemia. Thus, in infections of the hand we find operating factors which tend to make less effective both the sulfonamides and penicillin.

MOST EFFECTIVE USE

How, then, can we most effectively use the chemotherapeutic agents in infections of the hand?

1. The local use of sulfonamides should be limited to application as a first-aid agent in prolonging the "lag" period; that is, to increase the length of time in which it is safe to do primary repair and closure of the wounds. There is no indication for the use of sulfonamides locally in wounds following debridement and repair.

2. Sulfonamides can be given systemically to prevent the spread of infection, and especially in those cases in which hemolytic streptococci are present. Sulfonamides should be given in adequate doseage, buffered with sodium bicarbonate, making sure that the fluid intake is adequate, and, if prolonged use is necessary, watching carefully for urinary and blood complications.

3. Penicillin can be used locally as an ointment or as an aqueous solution in a compress after the surgical treatment of the infection. It has been shown that, used in this way, penicillin tends to hasten the elimination of organisms from the wound and that it acts as a bactericidal agent.

4. Penicillin systemically can be used in the treatment and the prophylaxis of spreading infection following injury to the hand. Penicillin should be used in adequate doseage (20,000 to 25,000 units every three hours intramuscularly). At the present time, if given by mouth it does not produce adequate concentration unless very large doses are used.

5. It has been shown experimentally that the combination of the sulfonamides and penicillin[1] (especially sulfathiazole and penicillin) produces a bacteriostatic and bactericidal effect which is greater than the sum of the two compounds, so that in severe cases of mixed infections it would be advisable to use both the sulfonamides and penicillin systemically.

SUMMARY

One of the common statements in all of the articles regarding the treatment of surgical infections with penicillin is that chemotherapy is not a substitute for sound surgical principles in the treatment of infection. Early diagnosis, prompt and adequate drainage, rest and elevation are still the primary factors necessary in treating infections of the hand. This is all the more important in those infections of the hand in which swelling is produced in the tissues under the unyielding pulleys in the fingers at the head of the metacarpal bones and the unyielding annular ligament at the wrist resulting in an ischemia and necrosis. Chemotherapeutic agents should be used as an adjunct to the treatment of infections of the hand.

Discussion by STERLING BUNNELL, M.D.

Nowadays seldom do we see the huge infected hands and forearms of yesterday. Due to better understanding of the surgery of infected hands, and now chemotherapy, these have practically disappeared. Cases of tenosynovitis that were treated by penicillin alone very early have been cured, but as soon as the bacteria become entrenched, surgical drainage is necessary. Not all bacteria are susceptible to chemotherapy. Early proper drainage of infected hands is still necessary.

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Amputations of the Hand and Fingers*

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AMPUTATION at the hand or digital level may be necessitated by accidental trauma, infection or tumors. It is indicated in the useless, unsalvagable, stiff and deformed finger.

The salvage of all possible function, the preservation of life or limb and the improvement of function and appearance are the roles amputation must play in these several situations.

Apposition of the opposing thumb and fingers, grasp, and hook are the three basic functions of the hand to be preserved, attained or sacrificed as the case may be. Since apposition and grasp are by far more important than only hook, the preservation of almost any sort of a thumb is better than no thumb at all. Stiffness and deformity which render a finger useless may well leave the thumb the most useful member of the hand. Similarly, with a multiple loss of fingers, one or two remaining stiff and ordinarily useless fingers, if sufficiently flexed to permit grasp in opposition to the thumb, will salvage a major function.

The stability of grasp and the leverage power on pronation and supination depends on the length of the hand-lever as measured from the hypothenar pressure pad to the second metacarpal-phalangeal pressure pads. For many manual workers, preservation of even a short index stump would be of mechanical value. To others, the appearance of the hand would be a disadvantage. However, a single short stump of the middle, ring and little fingers adds nothing to function or appearance. Both function and appearance are improved by doing an oblique osteotomy of the metacarpal and closing the space or smoothing the ulnar border of the hand. Many persons with only three fingers have friends who have never noticed the loss.

THE USEFUL STUMP

With the indications for and the roles of hand and finger amputations in mind in relation to the basic functions to be conserved, the surgeon may well consider a given case in terms of what sort of stump will be useful.

A good stump is painless on occupational activity. It is free from infection and from circulatory and trophic disturbances. It should possess tactile sensibility. Pressure areas and stump ends are best covered with palmar skin and pad. But sacrifice of an interphalangeal joint to avoid an end or palmar scar when essentially normal skin is available, ignores the many useful pain-free finger stumps seen in industry with end and palmar scars. Freedom from pain on use is a far better criterion of function than the location of the scar. However, it should be emphasized that unless it is reasonably likely that a useful stump will be obtained, enough bone should be removed to cover the end adequately with palmar skin.

GENERAL PRINCIPLES OF THE SURGICAL TECHNIQUE

Complete anesthesia, a bloodless field, absolute avoidance of a finger tourniquet or epinephrine in the finger block, and careful cleansing and debridement if a traumatic amputation is present, are basic initial steps.

All useful skin should be conserved to permit as long a stump as possible. Flaps should include, in one layer skin, subcutaneous tissue, deep fascia, the flexor tendon sheath, and the dorsal aponeurosis and the digital vessels.

The digital nerves should be sufficiently withdrawn before sectioning so that they will retract out of the scar and away from pressure over the bone end.

If the base of the distal or middle phalanx is preserved, the profundis and sublimus tendons insure strong flexion motion. In middle phalangeal amputations the flexor profundis tendon is permitted to retract. In the occasional instance where a single or multiple short proximal phalangeal stumps are the best that can be obtained, adequate flexion motion will be present in the absence of tendon suture. In no instance should a flexor tendon be sutured to the extensor apparatus.

The bone should be exposed extraperiosteally. The bone is sectioned and the end carefully smoothed, leaving no frayed periosteal shreds to form painful spurs. The cartilage may be removed from the phalangeal head. If the vitality of the flap is impaired, the raw bone end will afford an additional source of blood supply.

Upon release of the pneumatic cuff, a few minutes' pressure will control the oozing. The digital vessels will have been clamped and tied with very fine suture material. Any further bleeding points should be grasped with fine forceps and tied. Many stumps are very nicely closed by carefully approximating skin edges with fine non-absorbable suture material which are tied without tension. In others, a few deep sutures are helpful.

A moderately firm compression dressing, with the hand in the position of partial grasp and the inclusion of a splint from the fingers to the upper forearm, completes the dressing. Elevation postoperatively will avoid the post-operative stasis often encountered when the hand is dependent.

When healing has occurred, gradually progressive use is the best reconditioner.

TRAUMATIC AMPUTATIONS

Small tip defects will cover over spontaneously or with a little traction. Complete tip and slice defects of the whole dermis are best treated by skin grafting. Recently Allen has reported major complete or nearly complete traumatic amputations of the fingers including a joint, with healing made

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possible by following suture with careful refrigeration. Probably for some time, major digital traumatic defects will ordinarily be treated by completing the amputation so as to leave a useful stump.

The more extensive crushing injuries of the hands and fingers should be treated as outlined by Doctor Kirkpatrick at this symposium and definitive procedures should be left until the final situation can be precisely evaluated. When it is clear that a metacarpal-phalangeal amputation is necessary, use of a long oblique osteotomy to secure a smooth edge of the hand is obvious. Should metacarpals four and five require removal, they should be sectioned in the same oblique plane, starting proximally on the fifth and ending somewhat distally on the fourth, preserving all the hypothenar tissue possible.

INFECTIONS

In chronic and sub-acute infections such as are seen in some human bite and secondarily infected tuberculous dactylitis cases, metacarpal-phalangeal amputation can be carried out as already described and the wound left open. Healing by secondary intention will usually occur rapidly, co-aptation of the hand wound being attained by appropriate use of the compression dressing and splinting. The wound should not be packed open. A similar procedure in neglected fulminating infections is occasionally necessary to salvage the hand threatened by an already useless finger. It must always be remembered that these steps are irrevocable. The surgeon must be certain that the procedure is indicated.

DEFORMITIES

Old stiff or flexed functionless fingers following infections, or old severe Dupuytren's contractures, unsalvagable by means of tendon transplantation, capsulotomy, arthroplasty, fascial excision and skin grafting or re-positioning, should be removed. Such instances almost always permit the formation of an elective amputation scar.

TUMORS

Benign solitary tumors may occasionally make a finger an unsightly nuisance which can be removed easily by an elective amputation. The unsightly and deformed hands of multiple endchondromata are too useful as they are to sacrifice a digit without the most definite indications. Malignant tumors which threaten life must be most carefully evaluated before an attempt is made to cure by a combined hand and finger amputation while trying to have a functional hand.

POOR STUMPS

Poor stumps are often the result of inadequate surgical care. Faulty judgment as to the vitality of the soft parts, closure under tension, incorporation of digital neuromas in scar tissue under pressure, vasomotor disturbances arising both from the accidental trauma, surgical errors, absence of a compression dressing and elevation, all play their role in giving the patient not only a useless stump but a useless hand as well.

Simple, clean-cut, indicated surgery will obviate the great majority of unsatisfactory results.

Discussion by STERLING BUNNELL, M.D.

In amputating fingers the tendons should be drawn down and cut off, never sutured together over the finger stump. This would limit the motion of the other fingers as they pull from a common muscle. Proximal to the interdigitation of a hand, tendons should be sutured across the stump to move the wrist. A finger to be discarded may be filleted, that is, boned, and the skin used to cover a defect. It is better to have a good end to a finger, even though shorter than a longer finger with an unusable stump. Whenever we have the soft parts we can lengthen a stump by grafting bone. Painful neuromata are due to attachment of nerve ends in scar tissue and follow amputations in which there was infection. Whether to amputate a metacarpal well back rather than leave its head as a stump in a marginal ray depends, I think, on the type of patient, a strong, broad palm being useful for hard work. If a hand is amputated in a central ray, the adjoining fingers will cross on flexion so it is better to remove the metacarpal to its base and jog the marginal metacarpal over to take its place. When all digits are amputated, it is better to remove the second and fourth metacarpals for deep, wide clefts, phalangizing the hand to three digits. If only a few digits are left, they should, by osteotomy, be made opposable and the spare tendons in the forearm should be transplanted into their tendons for added strength.

Joints of the Hand and Fingers — — Their Stiffness, Splinting and Surgery*

Donald R. Pratt, Lt. Col. (M.C.), A.U.S., *Menlo Park*

POSITION of function and mobility of the thumb and finger joints are very essential factors in reconstruction of the crippled hand.

Stiffened joints of the hand result from (1) trauma to a joint or injury to the adjacent tissues, (2) infection, (3) functional inactivity and disuse from prolonged or improper immobilization, (4) foreign bodies near a joint, or, (5) repeated passive stretching and forceful manipulation of joints.

In civilian life we have all seen limitation of motion, or stiffness of fingers, result from infection in the hand. This may be due to inactivity with edema and fibrosis or from actual sloughing of tissues.

In the military service we have been confronted with a large group of compound hand injuries. These cases included perforating wounds of the hand and fingers, compound fractures, and wounds with nerve, vascular, and joint involvement. It was found the ultimate function of the hand depends upon the degree of injury, the type of early reparative care and the improvement afforded by various reconstructive procedures. All these cases were provided with some type of immobilization in their early treatment. Occasionally lack of time and facilities necessitated hasty or inadequate splinting. The period and degree of disability was minimized when time and care were given to the primary splinting or immobilization. Deformity and permanent stiffness of thumb and finger joints were inevitable when the position of function was not maintained, or where immobilization was prolonged. Through the later war years stiffness of the thumb and finger joints was minimized. The banjo and tongue blade splints were avoided. The hand was immobilized in the position of function with the wrist dorsiflexed, the proximal finger joints flexed, and the thumb opposed. Thus mobility of the digits through a useful range was maintained. Mal-united fractures were prevented by adequate reduction and early use of traction. In cases of nerve injury the muscle balance of the forearm and digits were preserved by supportive splints with elastic types of traction. Early closure of wounds and the use of skin grafts did much to prevent crippling contractures. The hand was exercised voluntarily by splinting only the involved joints and by early removal of splints.

However, in many cases pathological changes developed about the inactive and injured joints. Disuse and trauma to the tissues about joints caused serofibrinous exudate to be poured out into these tissues. The fibrin in this exudate led to fibroblastic adhesions and these adhesions progressed to connective tissue which scarred the joint capsule and adjacent ligaments. These structures thus became thickened, shortened by contracture, and plastered with organized adhesions. These changes in dimensions and consistency of the joint capsule and its ligaments led to loss of flexibility and length with ultimate stiffness of the joint.

An appreciation of the anatomical structures of the finger joints is important in understanding their pathology and treatment. In the finger the structure of the joint capsules, collateral ligaments, and adjacent tendons is complex. These tissues are all intimately inter-related in position and function. The extensor mechanism and tendons form the dorsal part of the joint capsules. The collateral ligaments are the lateral aspect. These lateral ligaments are oblique structures. They are slack with the joint in extension and since the metacarpal head bulges on its volar surface, the ligament becomes tense when the finger is flexed. Thus if these ligaments become shortened and thickened with the fingers in extension, the phalanx looses its ability to slide around the metacarpal head into flexion. This stiffening of the joints from fibrosis or contracture of the collateral ligaments of the finger joint result in considerable disability with the fingers in extension and the thumb at the side of the hand.

NEW TYPES OF SPLINT

With this appreciation of these anatomical structures in the finger and these pathological changes, we can better understand the principles involved in immobilization and mobilization of the injured hand. The pernicious banjo splint, tongue blade support, tight circular cast, massive, heavy, stiff splints, flat splints, have all been relegated to the dim dark past. Dr. Sterling Bunnell has developed and pointed out the value of light, form fitting, metal or plastic splints, flexible spring wire splints, bivalved plaster slab supports and elastic rubber bands for traction and exercise.

Thus a number of splints have been devised to immobilize the injured hand and fingers, maintaining the position of function during healing, and utilizing mobilization of the uninjured parts to prevent or minimize stiffness and contracture. A cock-up splint for the wrist with rubber elastic traction cots to the fingers may be used to maintain the position of function or as conservative therapy to draw stiffened joints into the position of function. This mild continuous traction may also be utilized with a glove and elastic bands through the glove finger tips. The knuckle bender splint is an excellent splint to obtain flexion of the metacarpo-phalangeal joints. This flexible light wire

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splint affords flexion of the knuckle joints with elastic rubber band traction. It also permits motion of the wrist, thumb, and other finger joints during the splinting. Elastic traction cots about the proximal joint of the thumb are used to maintain the opposed position of the thumb, or to draw out an adduction contracture of the thumb web. A clock spring wire extension splint affords elastic stretch to draw out flexion contractures of the fingers. A simple web strap, or elastic band, gives gentle traction to obtain passive flexion of a finger. When the stiffened knuckles or finger joints fail to yield to steady mild traction, surgery is generally indicated.

SURGICAL TREATMENTS

The surgical treatment of stiffened finger joints is limited to capsulotomy, arthroplasty, arthrodesis, and amputation. Capsulotomy affords improvement in the range of motion when the internal joint surfaces have not been damaged. The presence of good cartilage surfaces of the joints may be determined by x-ray. Both sides of the finger joint are exposed through longitudinal dorsolateral incisions. The metacarpo-phalangeal joints are exposed through incisions on the dorsum of the hand. The extensor tendon with the transverse fibers hood the joint. Retracting this fascia exposes the lateral joint capsule with its thickened, shortened collateral ligament. Since the intrinsic muscle tendon of the interroseus and lumbricale muscles lies just lateral to these collateral ligaments they must be identified and protected. These intrinsic muscle tendons may be drawn aside by a vein retractor.

Recently we have found that a thin Bennett's type of retractor takes up less space and is more positive in holding these structures out of the surgical field. Just cutting the thickened ligaments is not enough. A generous ellipse of these lateral ligaments must be excised. A pointed Bard-Parker knife or double pointed scissors are satisfactory. By actually removing a section of the ligament their entire width and excising all the loose tags, adhesions and rescarring of these ligaments is avoided. Frequently the extensor tendons on the dorsum of the hand are adherent to the cicatrix by adhesions and must be freed to permit full joint flexion. If the volar capsule of the joint is thickened and tight it should be stripped backward to permit sliding of the phalanx around the metacarpal head on flexion instead of merely opening up the joint wedge-like, pivoting on the volar margin of the joint. Postoperatively the metacarpophalangeal joints are held flexed by a dorsal slab of plaster. Flexion of the joints is maintained for a period of three weeks. A cock-up wrist splint with elastic traction by finger cots on the proximal phalanges may be used to maintain flexion and permit voluntary exercises. Excellent results follow this procedure in the great majority of cases with a useful range of flexion to an angle of 45 or 90 degrees. Tight skin scar over the dorsum of the knuckles or adherent extensor tendons across the dorsum of the hand are conditions which might occasionally limit the complete range of flexion.

Capsulotomies of the middle and distal finger joints afford only moderate improvement in motion. These finger joints are most commonly stiffened in burn cases or phalangeal fractures. These snug fitting joints stiffen easily and because their joint structures are frail and lie in such close proximity to one another, surgery is difficult.

INDICATIONS FOR ARTHROPLASTY

Arthroplasty is indicated when the joint surface is damaged and bony or fibrous ankylosis is present. This procedure is the reconstruction of the osseous structure and the component adjacent soft tissue part to restore both motion to the joint and function to the ligaments and tendons. The procedure may be divided into four parts: (1) the plastic adjustment of the soft parth, (2) the reconstruction of the bone, (3) the interposition of material between the articular surface and, (4), the after treatment.

When the joint cartilage has been destroyed, and there is bony or fibrous ankylosis an arthroplasty type of procedure becomes necessary to restore motion. On the metacarpo-phalangeal joints, this procedure is done through longitudinal incisions on both sides of the dorsum of the joint. The ankylosed joint area is exposed between the dorsal joint capsule containing the extensor tendons and the intrinsic muscle tendon which lies somewhat volar. The capsule scar is freed from the region of the old joint and the metacarpal bone and phalanx are separated with a chisel and anvil. A segment of bone is removed from the metacarpal to afford a new joint space of about 1 cm. The metacarpal head is then shaped with special anteroposterior and lateral surfaces. For stability the lateral axis is left broad and flat. The anteroposterior axis is narrow and rounded so as to permit a rocker action for the phalanx to slide around on flexion. The interposition of tissue is then done to prevent recurrence of the ankylosis. The head of the metacarpal is capped with a curtain of fascia lata from the thigh. Fine catgut sutures are used to hold this hood of fascia in place over the metacarpal head. The fascia should be carried up over the dorsum of the metacarpal to prevent readherence of the extensor tendons to the distal segment of the metacarpal bone.

NEW JOINT HELD IN FLEXION

As in capsulotomy, the new joint should be held in flexion by a dorsal plaster slab for a period of three weeks. Recently flexion has been maintained by a wrist cock-up splint and elastic finger cot traction. This traction affords flexion of the new joint and permits active exercise. Longitudinal traction on the finger may be used to hold the joint surfaces apart but is not absolutely necessary. Arthroplasties of the metacarpo-phalangeal finger joints. results in restoration of a useful range of 60-75 degrees of painless motion. Since these joints are stabilized by tendons on all four sides, adequate stability to the new joints may be maintained. However, the middle and distal joints of the fingers tendons are present only on the dorsal and volar aspects so that there is more tendency towards in-

stability following an arthroplasty procedure. In severe damage of these interphalangeal joints surgery is generally limited to amputation or arthrodesis in moderate flexion.

A group of battle casualties with wounds of the upper extremity, involving the vascular and nerve trunks have shown interesting trophic changes in the hand. In this series of cases pain and swelling of the hand resulted in marked voluntary loss of function which lead to serious joint stiffness. Degenerative trophic changes were observed in the tissues of these hands. There was atrophy of the skin, severe stiffness of the thumb at the side of the hand and marked stiffness of the fingers in extension of the distal two joints. X-ray evidence of osteoporosis of the bone and thinning of the cartilage was also noted. This fibrotic contracture of the fascia and of the intrinsic muscles of the hand has lead to almost complete loss of abduction and opposition of the thumb and of flexion of the fingers. These contractures have been interpreted as local Volkmann's ischemia involving the intrinsic musculature, namely, the abductor and opponens of the thumb and interossei and lumbricale muscles of the fingers. Conservative traction has offered no improvement. Good results, restoring the position of function of the thumb and fingers, has been obtained by stripping the contracted abductor muscles from the thumb metacarpal and phalanx to widen the thumb web. The shortened interossei and lumbricales were stripped from their proximal attachment to the metacarpals and flexor tendons so as to slide distally and permit flexion of the distal two finger joints. Postoperatively the thumb was splinted in the abducted and opposed position and the fingers in the moderately flexed position of function for a period of ten days to two weeks with a satisfactory position of grasp resulting.

Discussion by STERLING BUNNELL, M.D.

This paper covers the field and tells of what is being done in the various Army Hospitals assigned for hand reconstruction. Col. Pratt is in charge of that work at Dibble General Hospital. We should regard the hand as a mobile organ and never let it stiffen. It must move to thrive. Rigid splinting makes rigid hands. I have developed a system of elastic, or spring, splinting which actually mobilizes, or exercises, the hand as the joints are gradually forced around to the positions of function (examples shown). Whenever a hand remains swollen with edema and does not move, the scene is set for stiffening. Fibrin precipitates throughout those waterlogged tissues sealing the ligaments when they are short and stiff, binding the moving parts whether muscle, tendon or joint. Fibroblasts grow in and we have a congealed hand, stiffened in the position of nonfunction. The wrist is the key joint here. When held flexed, the extensors tighten drawing the digits back into this position. Col. Pratt has mentioned the various ways of regaining this lost motion and muscle balance in the position of function. The ischemic contracture of hand muscles is a rather rare entity. In examining about 5,000 wounded hands, roughly three dozen of them were encountered. A test for this is as follows: When the proximal finger joint is passively held in extension, one cannot flex the distal two joints due to the contracture of the interossei.

Use of the Blanchard Mechanotherapist In Treating Postoperative Atelectasis

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THE majority of patients following thoracic surgery recover rapidly and atelectasis of the lung tissue lasts for a relatively short period of time. Complete reexpansion of partially atelectatic lung tissue may be brought about rapidly by a combination of treatments consisting of displacement of fluid and air from the intrapleural space, establishment of a negative intrapleural pressure, and periodic development of a positive intrapulmonic pressure as a result of repeated coughing. Therapeutic exercises involving bilateral symmetrical exercises of the chest and shoulders may be employed also to assist in the reexpansion of the lung tissue. Even in spite of these therapeutic procedures, a certain number of patients will be found on x-ray examination to possess incomplete reexpansion of the remaining lung parenchyma.

A limited study was made on a small group of such patients selected from the surgical wards of a large army hospital which has been designated as a chest surgery center. An additional therapeutic measure was instituted to aid in the reexpansion of the lung tissue. This consisted in the use of the Blanchard Mechanotherapist to supplement breathing exercises. The diagnoses of the 13 patients in whom the studies were made include the following: there were five cases of bronchiectasis, four cases of empyema of the thorax (unilateral), one with an abscess of the lung, one with a mediastinal tumor, one with a pericardial cyst, and one with pulmonary tuberculosis.

In all instances a thoracotomy of the chest wall was made and either excision of the diseased or abnormal tissue made or a large open drainage of the chest established. A series of measurements of the chest was made daily on each patient. These consisted of measuring the diameters of the chest wall on the normal and abnormal sides; the points for successive measurements were determined and marked on the chest wall, namely, at the lower border of the manubrium at the parasternal line, at the nipple line in the mid-clavicular line, and at the level of the ninth rib in the mid-axillary line. The transverse diameter was measured at the level of the ninth rib in the mid-axillary line, and the circumference of the chest was measured at the same levels as those for the antero-posterior diameters. Vital capacity measurements were made by means of a spirometer. All measurements were repeated at the beginning and the end of each treatment, and the total treatment period lasted from seven to ten days.

Physical examinations showed a restriction of movement of chest wall on one side. There was a definite lag in the excursion of the chest wall on the operated side during inspiration in all of the patients. Nine patients showed a limited expansion of the chest on the right side and four on the left.

METHOD

The treatment routine employed in this study was as follows:

1. Initial chest measurements and vital capacity determinations were made and recorded.

2. The patient was placed in the posterior shell of the plastic chestcage of the Mechanotherapist. Sand bags and towels were applied to the chest on the normal side to a height sufficient to restrict the respiratory movements of the normal hemithorax when the front shell of the plastic cage was applied. The purpose of this procedure was to limit the excursion of the chest wall on the normal side and thus force respiratory excursions of the operated side. (It is believed that with a greater expansion of the chest, the intrapleural pressure should become more negative and a greater expanding force subjected to lung parenchyma.)

3. The patient was then instructed to remain more or less passive and to synchronize his breathing with the rate and rhythm of the artificial respirator. Actually, however, the rate of the machine was usually adjusted to coincide closely with that of the patient. Passive breathing by means of the respirator was continued for five minutes.

4. Following this, the patient was instructed to forcefully expand and retract his chest wall during alternate periods of deep inspiration and expiration. He was instructed also to cencentrate on moving the chest wall on the operated side. Forced breathing assisted by the machine was continued for five minutes.

5. Alternate periods of quiet and forced breathing, within the respirator, of five minutes duration each were continued during a thirty minute period daily. This constituted a single treatment.

6. Following the discontinuation of a treatment, the measurements of the chest diameters and the vital capacity determinations were repeated and recorded This procedure was carried out daily six days a week.

RESULTS

The results obtained in this series of patients are shown in Table 1.

It will be observed that the restricted motion of the chest was partially corrected in every patient. All 13 patients showed an increase in the antero-

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TABLE 1.—*Results Observed in Thirteen Patients Treated Daily With the Blanchard Mechanotherapist Based on Measurements Made at the End of One Week of Treatment*

Data Related to Comparative Measurements on the Affected Side Only

	RIGHT CHEST Antero-posterior diameter			LEFT CHEST Antero-posterior diameter		
	Manubrium	Nipple	9th Rib	Manubrium	Nipple	9th Rib
Increase	9	5	3	3	4	3
Decrease	0	1	4	0	0	1
No Change	0	3	2	1	0	0

	TRANSVERSE DIAMETER				VITAL CAPACITY
	9th Rib	Manubrium	Nipple	9th Rib	
Increase	6	9	10	4	12
Decrease	3	1	1	7	1
No Change	4	3	2	2	0

posterior diameter of the chest at the level of the manubrium, nine showed an increase at the nipple line, and six showed an increase at the ninth rib. Changes in the antero-posterior diameter of the chest wall at the level of the ninth rib were inconstant, and for the present no satisfactory explanation can be offered to account for the irregularities; six showed an increase, five a decrease, and two no change. Measurements of the transverse diameter at the level of the ninth rib showed the following: six patients showed an increase, four showed no change, and three showed a decrease. A decrease in the circumference at the level of the ninth rib was noticed in seven patients, four showed an increase, and two no change. Nine patients showed an increase in the circumference at the manubrium, ten at the nipple line, and four at the level of the ninth rib. At these same levels there were no changes in the circumferences in three, two and two patients, respectively, whereas a decrease in the circumference was observed in one, one and seven patients, respectively.

Although the observations using this method of treatment have been made on relatively few patients and the treatments were employed for a short time, the results appeared quite encouraging. The patients reacted very favorably to the treatment and appeared to be improved subjectively. The lag of the chest wall during the respiratory period was abolished, and definite evidence of an increase in the excursion of the chest wall was observed in the majority of patients. It has been concluded that the treatment is beneficial in promoting the recovery of the functional control of the chest and of reestablishing proper ventilation of the lung. It would appear also from these observations that the excursion of the chest wall on the restricted side may be increased and the vital capacity enlarged. It is strongly suggestive that the treatment assists reexpansion of the lungs. Roentgenological examinations showed reexpansion of the atelectatic lung tissue, but it cannot be claimed that the pulmonary changes were brought about entirely by the treatment nor can the exact amount of benefit be ascribed to the use of the machine. However, it is my opinion that some beneficial results were supplied by the treatment because of the fact that the patients selected for the study were those that appeared to be refractory to other forms of treatment, and the state of partial collapse had persisted for a considerable period of time (one to three weeks).

Further observations have been made on a larger number of patients since the completion of this preliminary study and have been carried out over a longer period of time (four to six weeks in some patients). A complete analysis of the data thus obtained has not been made to date, but general indications are that the results largely support the conclusions arrived at in this preliminary study.

SUMMARY OF CONCLUSIONS

1. A series of observations has been made on therapeutic effects of the Blanchard Mechanotherapist on a group of 13 patients in whom reexpansion of the lung was incomplete following thoracic

surgery. The chest operations involved either an extensive thoracotomy with open drainage (two patients) or a thoracotomy with excision of the diseased or abnormal tissue (eleven patients).

2. Vital capacity determinations and measurements were made of the chest wall in the antero-posterior and transverse diameters, and the circumferences of all patients before and at the end of each treatment.

3. Each patient was treated 30 minutes daily for one week or more. Restriction of the excursion of the normal side of the chest was accomplished by means of sand bags and towels placed between the chest wall and the anterior shell of the plastic cage. Patients were instructed to force breathe while synchronizing the rate and rhythm with the alternate phases of compression and rarefaction of the air within the plastic shell of the respirator.

4. Twelve of the thirteen showed an increase in the antero-posterior diameter of the chest at the level of the manubrium; nine at the level of the nipple line; six at the level of the ninth rib.

5. All patients showed a disappearance of the lag of the anterior chest wall on the operated side. the excursion of the chest wall on the two sides becoming equal and synchronous.

6. All patients stated that they felt better at the end of the treatment period, and there was a disappearance of any signs of dyspnea which may have been present at the beginning of the treatment.

7. It is concluded that the Blanchard Mechanotherapist provides a beneficial type of treatement which may be used to assist in establishing normal pulmonary ventilation and in reexpanding the lung in patients having residual postoperative atelectasis following surgery.

Fatal Myocarditis With Complete Heart Block From Diphtheria

R. A. Kocher, M.D.. *Carmel*

DIPHTHERIA, as is well known, if not treated promptly and sufficiently with antitoxin may cause serious myocardial damage. Such cases are now rarely encountered and this is remarkable when we note that less than two generations ago Aschoff[1] reported that 10 to 20 per cent of all cases of diphtheria showed parenchymatous degeneration of the heart muscle. This improved condition may be credited to the early recognition of the disease and the prompt treatment with antitoxin. Of 60 patients with diphtheria treated with antitoxin at the 203rd General Hospital, United States Army, during 1944-45, none showed any clinical evidence of heart involvement.

Outside this series, a German prisoner of war with diphtheria, for which no antitoxin had been given (he had been taken prisoner on the sixth day of the disease), entered our service at a stage when grave damage to the heart already had occurred. Because of the severity of the heart damage, manifest by clinical symptoms and the series of electrocardiographic tracings characteristic of heart block, later confirmed by post-mortem examination, this case is here reported.

CASE REPORT

A German prisoner of war, 29 years old, was admitted to the hospital with complaints of pain in the left cervical region, swollen neck glands and inability to swallow. Six days before admission he first developed sore throat for which he used pills and gargles. Twenty-four hours after onset, swelling in the neck began and became progressively worse until it became very painful to swallow. He was in seriously ill condition when picked up by American troops and sent to the hospital.

On admission there was intense edema of the soft palate and left posterior pillar. The posterior pharyngeal space was greatly inflamed and frank pus was present. Because of the appearance of the throat the admitting officer entered the patient on the surgical service where an incision was at once made between tonsil and capsule on the left. Diphtheria was not suspected and no smear or culture was taken on the day of admission.

On the day following admission the patient showed bradycardia, a pulse rate of 42 and temperature of 36.3 C. The throat now appeared covered with a gray gangrenous exudate over left tonsil and pillar. A throat culture was taken at this time and the patient was transferred to the medical service. The blood pressure was 85 systolic, 70 diastolic; respiration slow and often sighing. On this same

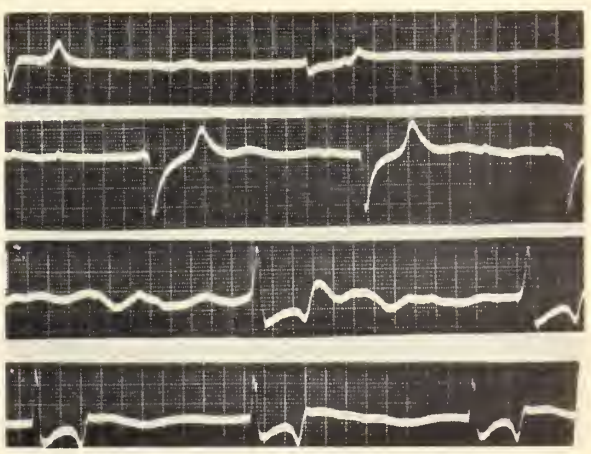


Fig. 1.—Electrocardiogram, four leads; showing complete dissociation of auricular and ventricular complexes. Auricular rate 110, regular; Ventricular rate 30, irregular. Eighth day from onset of diphtheria.

day the electrocardiograph (Fig. 1) showed complete heart block; ventricular rate 30, auricular rate 110. On the third day after admission, or ninth day after onset of illness, the pulse became weak and rapid—130 at the wrist. The electrocardiograph (Fig. 2) now showed ventricular tach-

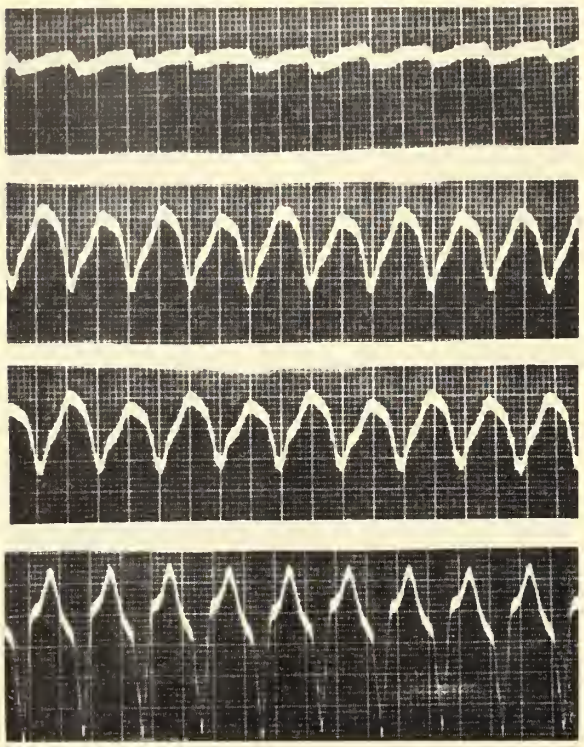


Fig. 2.—Electrocardiogram, four leads; showing paroxysmal ventricular tachycardia. Ventricular rate 150, regular. Ninth day from onset of dyphtheria.

ycardia; rate 150, regular. Fluid intake recorded for this day was 1,150 cc. and output 50 cc. Temperature was 36.2 C. The throat culture at this time was positive for C. diphtheriae. Administration of quinidine sulphate intravenously, 0.2 gm. every three hours, was begun at 5 P.M. The following morning the tachycardia was still present and another electrocardiographic tracing (Fig. 3) was made at 10 A.M. The rate was still 150 with regular rhythm. Quinidine was continued until a total of 1.2 gm. had been given. By 4:30 in the afternoon the pulse had dropped to 78 with regular rhythm and sounds of fair

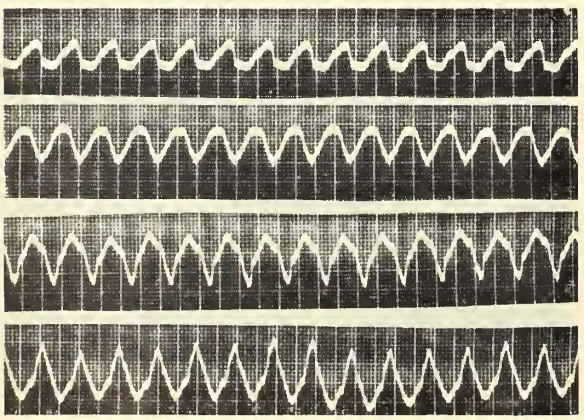


Fig. 3.—Electrocardiogram, 4 leads; on second day of ventricular tachycardia; tenth day from onset of disease. 10 A.M.

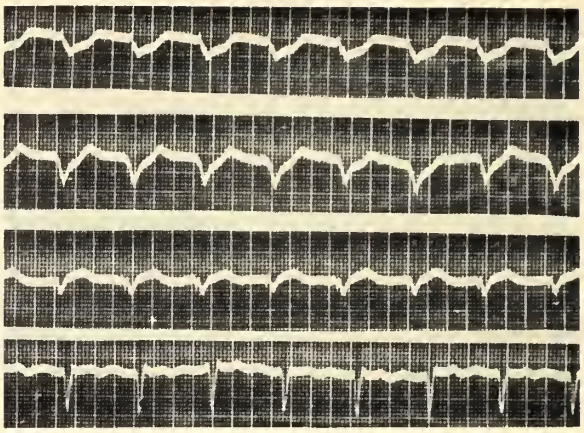


Fig. 4.—Electrocardiogram, 4 leads; twenty hours after beginning use of quinidine sulphate. (Total 18 gr.). Ventricular rate 85, regular. 5 P.M. 11th day from onset of disease. Of special interest is lead four in which the ventricular complexes are regular and fairly normal and the possibility that here we have a transient auriculo-ventricular nodal rhythm. Though no P waves are apparent, this could be accounted for by the action of quinidine in depressing the reversal of the impulse through the junctional tissue into the auricles. The ventricular rate of 85 is somewhat against this supposition.

quality at the apex. An electrocardiograph (Fig. 4) was taken at 5 P.M. The patient's condition became progressively worse and he died during the night at 1:15 A.M.

Laboratory reports: On the day of admission, R.B.C. was 4,300,000; Hg. 90 per cent; W.B.C. 9,100; Segs. 61, stabs 2, eosin. 3, lymphs. 33, monos. 1. Urinalysis showed Sp. Gr. 1.028; no albumin, no sugar.

Clinical diagnosis: diphtheria, pharyngeal; myocarditis with heart block; paroxysmal ventricular tachycardia.

AUTOPSY FINDINGS

An autopsy was performed by Major George J. McHeffey. The pericardial sac contained 70 cc. clear straw colored fluid. The heart weighed 465 grams and was somewhat increased in transverse diameter. The epicardial covering was smooth and glistening except for a few scattered petechial hemorrhages. On opening the heart the right ventricle was found to be markedly dilated. There was also a moderate dilatation of the left ventricle. The valves were thin, smooth and translucent. The tricuspid valve measured 14 cm., the pulmonic valve 7.5 cm., the aortic valve 6.4 cm., the mitral valve 8.5 cm. The thickness of the right ventricle measured 0.5 cm. and that of the left ventricle 2 cm.

On sectioning the heart, numerous small areas of fibrosis were seen, but a more striking feature was the presence of alternate areas of red and yellow discolorations suggesting acute infarction. However, the coronary arteries were patent and there was a minimal amount of arteriosclerosis.

Microscopic examination of the heart septum revealed a diffuse destruction of heart muscle fibers (Fig. 5.), the destroyed fibers taking on a deep blue stain suggestive of acute necrosis. Surrounding the splintered and destroyed fibers were diffuse and local infiltrations of neutrophylles, hymphocytes, monocytes and a few plasma cells. There was also a moderate leukocytic exudate invading the muscle fibers that were destroyed. This destructive process extended into the junctional tissue between



Fig. 5.—Photomicrograph showing acute diphtheritic myocarditis. Extensive destruction and necrosis of muscle fibers is apparent. Also diffuse and local infiltrations of neutrophyles, lymphocytes, and formative cells.

auricles and ventricles as well. In other areas the inflammatory exudate was perivascular and associated with perivascular fibrosis.

The pathological diagnosis was (1) Diphtheria, laryngeal, tracheal. (2) Myocardial degeneration, toxic. (3) Hydrothorax, bilateral. (4) Pleuritis, right. (5) Bronchopneumonia, bilateral. (6) Hydropericardium.

Clinically, the striking feature in this case is the high grade of break in a-v conduction, manifest by severe bradycardia, later by paroxysmal tachycardia, and the electrocardiographic tracings characteristic of complete heart block. Further, the restorative, though futile, of normal rate following the use of quinidine sulphate. These striking clinical findings were found at postmortem examination to be due to equally striking pathological changes in the myocardium.

It should not pass without comment that had the diphtheria been recognized in the early stages instead of after the lapse of seven days from onset of symptoms, antitoxin in adequate dosage might have prevented this damage to the heart muscle, hence might have been life saving. It is unlikely that this would have availed on the day of admission, the sixth of the disease, when the patient first fell into American hands, although no excuse is offered for not taking smears and cultures at that time.

Diphtheria, as well as certain other infectious diseases—rheumatic fever for example—in those occasional cases where they produce milder grades of heart block from the action of a soluble toxin, commonly produce a transient effect from which complete or nearly complete recovery is the rule. In these cases that recover, the condition causing interference with conduction is probably transient perivascular cellular infiltration with edema. "In diphtheria the conductive system is invaded by lymphocytes and eosinophiles. These collections tend to be perivascular and may be so extensive as to disrupt the continuity of the bundle. The muscle is edematous and where not replaced by cellular elements is, swollen, granular and stains poorly."[3] Sir Thomas Lewis[2] in discussing heart block from infection states: "In most such infections, however, the block is transient, there being recovery from much or all of the original damage." Paul White and T. Ducket Jones[4] made a follow-up study of 100 consecutive individuals who had proven severe diphtheria from five to eight years prior to examination. Quoting from this study, Paul White[5] reports: "There is little chronic effect on the heart from diphtheria, even when it is severe. Survival usually means escape from any permanent or severe heart disease. Slight lesions may perhaps persist which cannot be discovered by any careful study years afterward. . . . Not one of these 100 cases showed any evidence of heart disease." On the other hand, there is the occasional and now rare severe and fatal case such as that here reported, and White[5] also makes the statement, "Undoubtedly death during diphtheria results from myocardial involvement in a considerable percentage of fatal cases."

In the present instance it soon became apparent clinically that the break in protoplasmic continuity was complete so that conduction was no longer possible. The action of quinidine in restoring normal rate from a ventricular tachycardia of 150 is not altogether clear. Offhand one would hesitate to use this drug in the presence of heart block because of its depressing effect on a-v conduction. However, from the electrocardiogram (Fig. 3), we see a type of tachycardia evidently arising in the a-v node with p waves buried in the QRS complexes. One of the actions of quinidine is to lengthen the refractory period of heart muscle (from 50 to 100 per cent), and it would seem most likely that this accounts for the effect in slowing the rate in the present instance.

In our patient the findings on postmortem examination were parenchymatous degeneration of the heart muscle, involving not the a-v bundle alone, but almost all the heart muscle as well. And this diffuse involvement is also consistent with the general rule that complete a-v block is almost invariably evidence of more extensive damage to the heart muscle.

SUMMARY

A case of complete heart block from diphtheria in a 29-year-old male, resulting fatally, is presented. The salient clinical and pathological features are presented.

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MEDICAL PROGRESS:

Recent Progress in Pediatrics

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IN presenting this review of the progress in Pediatrics the author has attempted to include material which would be of practical value and interest to the practitioner. The articles reviewed have been published for the most part in the past two years.

The subjects covered include: (1) the treatment of pneumococcic meningitis with penicillin and sulfonamides; (2) the treatment of influenzal meningitis with streptomycin; (3) the treatment of tuberculous meningitis with streptomycin; (4) the relationship of prenatal rubella to congenital defects; (5) chemo-prophylaxis against rheumatic fever with sulfonamides; (6) the treatment of megaloblastic anemia with folic acid; (7) the surgical treatment of congenital heart disease; (8) recent trends in the treatment of convulsive disorders; and (9) the antihistaminic agents.

An important field which is not being considered in this review is that of Immunization which is to be covered at another time as a "Medical Progress" report in this Journal. Another field in which a great deal of interest has developed in the past few years is that of the Rh factor and its relationship to a serious group of conditions in the newborn period including fetal hydrops, icterus gravis and erythroblastosis fetalis. Since this has been covered in a recent "Medical Progress" report[25] it is not included here.

PNEUMOCOCCIC MENINGITIS

The treatment of pneumococcic meningitis has gone through the phases of the use of type specific serum, then sulfonamides and now penicillin. Waring and Smith[29] report their experience with the combined use of penicillin and sulfonamides in the treatment of pneumococcic meningitis. They did not feel that one type of sulfonamide was better than another. Usually sulfadiazine or sulfapyridine was used, the initial dose usually given intravenously being 0.05 gram per kilogram of body weight. The patient immediately received an additional 0.1 gram per kilogram by mouth or stomach tube. From then on approximately 0.2 gram per kilogram was given in six doses each 24 hours. Intramuscular and intrathecal administration of penicillin was started as soon as the diagnosis was established. Infants and small children received 5,000 to 10,000 Oxford units daily intrathecally and 1,500 to 2,500 units intramuscularly every three hours day and night. Treatment was continued for at least six days after the last positive spinal fluid culture. At this time penicillin was withdrawn, but sulfonamide therapy was continued for seven to fourteen days. There was only one death in a series of twelve cases and this occurred within ten hours of admission. They concluded that the results were better than with sulfonamide alone, with a sulfonamide and serum combined or with penicillin alone. Spastic monoplegia and bilateral nerve deafness occurred in two cases but the meningitis had been active for 36 and 17 days respectively before combined therapy was started. One patient had optic nerve atrophy due possibly to intrathecal administration of penicillin.

In another report[16] the results of penicillin therapy in 14 cases of pneumococcic meningitis in infants under two years of age are presented. The penicillin was administered intrathecally as well as intramuscularly as in the previous report. Nine children survived, but five of the survivors had residual damage of a permanent nature to the central nervous system.

Although the development of neurological complications in those children who survive is probably a complication of the meningitis, nevertheless there is a real danger in the use of penicillin solution intrathecally as has been demonstrated in several reports.[17,23,28]

INFLUENZAL MENINGITIS

There is increasing evidence that streptomycin is highly effective in the treatment of influenzal meningitis. Until recently this condition has been treated by sulfonamides and type specific rabbit antiserum with fair success. There are a number of reports[3,4,6,24,30] in the recent literature which attest the efficacy of this new antibiotic in the treatment of this most serious disease.

Alexander[3] recommends the following schedule of treatment for patients with influenzal meningitis of mild or average severity: An amount of streptomycin solution containing 20,000 units per pound of body weight is introduced by the intramuscular route daily. This is given in eight doses at three-hour intervals in a concentration of 50,000 units or less per cc., or by a continuous intramuscular drip in a total volume of 240 cc. of physiological saline. The drug is also given intrathecally to all patients, the injections, usually one a day, varying in total number depending upon the severity of the infection. She feels that a period of five days treatment is adequate for all patients with meningitis, pointing out that eighth nerve deafness may occur in patients treated for longer than one week. For severe H. influenzae meningitis of types other than *b* she recommends the use of streptomycin plus sulfadiazine and for severe type *b* H. influenzae meningitis the combination of streptomycin, sulfadiazine and rabbit antiserum.

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TUBERCULOUS MENINGITIS

Streptomycin offers some hope in the treatment of tuberculosis as well as the group of diseases due to gram negative organisms. Feldman, Hinshaw and Mann[26] report a series of experiments to evaluate the efficiency of streptomycin in the treatment of tuberculosis experimentally produced in guinea pigs. In one group of animals that were not treated, the mortality rate at the end of 166 days was 70 per cent, while in the treated group only 8 per cent had died. Nearly all the untreated controls showed at necropsy severe, widely disseminated tuberculosis, while the tuberculous disease among the animals that had been treated was minimal. Fifty-two per cent of the treated animals had no tuberculosis grossly or microscopically. Thirty-nine per cent of the treated animals living when the experiment was terminated gave a negative reaction to tuberculin.

Cooke, Dunphy and Blake[8] report the use of streptomycin in the treatment of an infant with tuberculous meningitis. The drug was administered intramuscularly and intrathecally almost continuously for 73 days. Tubercle bacilli were not demonstrated in the spinal fluid after the thirteenth day of treatment. Seven months after the beginning of treatment the child had shown remarkable improvement and the spinal fluid was normal. The associated infection of the lungs and mediastinal lymph nodes also showed considerable improvement. Bilateral deafness and some vomiting persisted, however.

Krafchik[20] reported the treatment of a 15 months old child suffering from tuberculous meningitis who made a complete clinical recovery after administration of streptomycin intramuscularly and intrathecally. Over a period of 57 days the child received a total of 24,000,000 units intramuscularly and 2,800,000 units intrathecally.

A report to the Committee on Chemotherapeutics and Other Agents of the National Research Council by Hinshaw is quoted by Keefer and his collaborators.[18,19] Hinshaw reported the treatment of tuberculous meningitis in seven patients, one died and the other six showed evidence of clinical improvement. Four patients were still living at the time of the report but the outlook with regard to eventual prognosis was considered doubtful since all had neurological complications and all but one still had an increased cell count and increased protein in the spinal fluid.

In a later report Hinshaw and his co-workers[15] reviewed 100 cases of tuberculosis treated with streptomycin. Included were 12 patients with generalized hematogenous tuberculosis, nine of whom presented clinical evidence of meningitis, two had focal cerebral lesions of tuberculosis and one had miliary tuberculosis. Six of these patients have died. The patients with tuberculous meningitis received 100 to 200 mg. of streptomycin intrathecally every 24 to 48 hours for two to six weeks. In addition all patients received two to three grams of the substance daily by intramuscular injection, and this treatment was continued for six months. None of the patients that died received intrathecal therapy and none of those who received intrathecal therapy had died up to the time of the report. No cure of miliary tuberculosis has as yet been witnessed by these authors. They feel that streptomycin appears to be bacteriostatic rather than completely bactericidal in the concentration which can be attained in the tissues.

The report of Keefer[18,19] summarizes the results of the use of streptomycin in 1,000 cases of various types. The drug can be given intramuscularly, subcutaneously or injected directly into the subarachnoid space or the pleural or peritoneal cavity. Very little is absorbed from the gastrointestinal tract. The intramuscular route is the one of choice and it is necessary to repeat the injection every three to four hours. It is suggested that 1 to 4 grams a day be given for five to fourteen days. The topical use of streptomycin is recommended in the treatment of empyema or meningitis by injecting it directly into the pleural cavity or the subarachnoid space. These authors report that streptomycin has been most effective in the treatment of tularemia, H. influenzae infections, urinary tract infections due to gram negative bacilli, bacteremia and meningitis due to gram negative bacilli. The results in typhoid, brucellosis and salmonella infections have been disappointing and inconclusive. The report suggests the need for further studies in tuberculosis. There are a number of reactions that occur which are histamine-like, including headache, flushing of the skin, neurologic disturbances, vertigo and paresthesias, hypersensitive reactions, fever, skin eruptions and eosinophilia.

Although these reports are encouraging, it is obvious that streptomycin is not going to replace other forms of treatment for tuberculosis although it may be used in association with other therapeutic methods. It is possible that streptomycin may be quite effective in the serious types of tuberculosis, such as tuberculous meningitis and miliary tuberculosis, if the disease is recognized early and treatment instituted without delay. The eventual control of tuberculosis will depend, however, on continued emphasis on case finding and isolation of the open cases.

RUBELLA IN PREGNANCY AND CONGENITAL DEFECTS

Since the report by Gregg[14] of Australia in 1941 which pointed out that rubella in the pregnant woman, especially in the first two or three months of pregnancy, may cause serious fetal damage producing congenital cataracts, a number of confirmatory reports have appeared which reveal that congenital cataracts and other congenital disturbances may result from this prenatal influence. Most of the more recent reports[1,2,7,9,13,22,27] are in agreement with the previously published articles in indicating that the most common defects are cataracts, mental deficiency and heart disease. Deafmutism, microcephaly, hypospadias, microphthalmos and obliteration of the bile ducts have also been reported but less commonly. The close correlation between rubella in the early months of pregnancy and congenital defects has brought up the

question of whether it might not be advisable to do an abortion in such instances. Only one report[12] has appeared which does not bear out this relationship.

PROPHYLAXIS IN RHEUMATIC FEVER

The prevention of recurrences of attacks of rheumatic fever is highly desirable since each subsequent attack may cause further damage to the heart. In an attempt to prevent such recurrences Wolf, Rauh and Lyon[31] followed 70 children who received sulfathiazole or sulfadiazine for a total of 81 patient seasons. The dosage was 0.5 gm. twice a day. Of the 70 children, 45 had had rheumatic attacks during the previous year and the other 25 had had attacks previously. None of the children suffered recurrences of rheumatic fever during the period of treatment, although one contracted subacute bacterial endocarditis. One child developed a recurrence and another developed subacute bacterial endocarditis during a summer season between courses. Reactions to the chemo-prophylaxis were mild. The most common reaction consisted of albuminuria which in four instances necessitated withdrawal of the drug. Mild leucopenia and slight rashes also occurred. The authors conclude that sulfathiazole and sulfadiazine can be safely and effectively administered to children over long periods of time. There are two major precautions: the patient must be completely recovered from the acute episode of rheumatic fever before the prophylactic treatment is started, and he must be observed frequently for the detection of reactions.

In the light of this and other reports, there seems to be adequate evidence that sulfonamide prophylaxis can do more good than harm in children who have had previous attacks of rheumatic fever.

MEGALOBLASTIC ANEMIA

Zuelzer and Ogden[32] report a new entity, megaloblastic anemia, based on studies of 25 infants ranging in age from two months to 18 months. Symptoms of cough and coryza generally accompanied the anemia, with fever and vomiting and diarrhea as common additional complaints. The physical findings were similar to those in any severe anemia: pallor, systolic murmur, enlarged liver, and fever of variable degree. Malnutrition was present in about 50 per cent of the patients, splenomegaly in 40 per cent and petechiae in 20 per cent. The blood picture revealed an anemia with macrocytosis, usually. The bone marrow pattern was megaloblastic resembling that of pernicious anemia in relapse. Pathologic granulocytes were also present. The entire diagnosis rested on these marrow findings. In all cases folic acid (either as the L. casei factor extracted from liver or as synthetic folic acid) or liver extract had an identical and distinctly curative effect. Megaloblastic anemia is considered to be a deficiency anemia caused by a lack of the erythropoietic factor contained in folic acid and liver extract.

Zuelzer,[33] in another article, points out that folic acid is of no value in anemias of infants and children other than megaloblastic anemia. The other anemias that were studied included anemias of prematurity, hypochromic microcytic anemia, aplastic anemia, subacute myelogenous leukemia, acute lymphatic leukemia and sickle cell anemia.

This new anti-anemia substance, folic acid, apparently has limited use in pediatrics, but careful analysis of infants with anemia may reveal cases similar to those reported by Zuelzer and Ogden, for which this factor seems to be specific.

SURGICAL TREATMENT OF CONGENITAL HEART DISEASE

One of the more dramatic developments in the field of therapy has been the treatment of certain types of congenital heart disease by surgical methods. Blalock[5] points out that the classification of congenital heart disease given by Maud Abbott divides these conditions into three groups. In the first group there is no abnormal communication or shunt between the right and left sides of the heart and no cyanosis. In the second group there is an arteriovenous shunt with arterial blood entering the pulmonary circulation; cyanosis may occur occasionally but is not usually present. In the third group large amounts of venous blood enter the systemic circulation and cyanosis is a typical symptom. Advances in surgical treatment of one condition in each of these three groups have been made in recent years. Blalock reports that Crafoord of Sweden and Gross of Boston have devised operations for the treatment of coarctation of the aorta by excision of the stenotic area and end-to-end anastomosis of the two ends. The author of this article also points out that Gross was the first to succeed in closing a patent ductus arteriosus. Blalock reports operating on 19 patients with this condition, and in only one of those in which simple ligature was done has the ductus seemed to reopen.

Dr. Helen Taussig suggested that in the tetralogy of Fallot the blood flow to the lungs could be increased by surgical intervention. Experimental work on animals showed that this could be done by creating an artificial ductus by end-to-end anastomosis of a systemic artery with one of the pulmonary arteries. Blalock reported that up to November 1, 1945, 57 operations had been done on 55 patients with the diagnosis of tetralogy of Fallot. In three the anastomosis could not be done because of an anatomical abnormality or error in diagnosis. In the others the right or left subclavian artery was used for the anastomosis in 26 instances, the innominate artery in 23, and the common carotid artery in five. Forty patients were improved following operation, two showed little change, and ten have died. In two of the ten fatal cases autopsy revealed the diagnosis of tetralogy of Fallot to have been in error. The 40 patients with improvement have been transformed from almost complete invalidism to near normality.

The immediate results in children on whom the Blalock operation has been done successfully is quite impressive. These children seem to take a new lease on life. They lose their cyanosis, they become more active and their appetites improve. It is too early to state what the eventual outcome will

be. One wonders whether these children will be more susceptible to subacute bacterial endocarditis since an artificial ductus arteriosus is produced.

THE TREATMENT OF CONVULSIVE DISORDERS

Great strides in the treatment of convulsive disorders is indicated in a report by Lennox.[21] He points out that three relatively new drugs are available. One is phenytoin or dilantin sodium, which is now eight years old but has not, he says, been used effectively in many instances. According to Lennox, patients are given an inadequate dosage or are not followed closely by their physicians. He suggests using the drug until the point of tolerance has been reached before discarding it as a failure. It is the drug of choice for grand mal or psychomotor seizures, although it is recommended that phenobarbitol be tried first. The dosages for dilantin range between 0.015 gm. one to three times daily for infants and 0.09 gm. one to three or four times daily for children and adults. The second drug mentioned by him, mesantoin, is not yet on the market. Although this drug, unlike dilantin sodium, does not have the side effects of muscular incoordination or hyperplasia of the gums, it does produce more frequent skin reactions and has a greater sedative effect. It is recommended that older children be given 0.2 to 0.6 gm. daily. This drug may be substituted for phenobarbitol or dilantin sodium when the lack of therapeutic results or toxic reactions require a change. The third drug is tridione. This drug has a specificity for seizures of the petit mal triad which includes petit mal (or pykno-epilepsy), myoclonic jerks, and akinetic (loss of posture) seizures. A high proportion of patients treated are relieved and there is a pronounced reduction in the number of seizures. Reactions that occur include rash, increased irritability, gastric symptoms and photophobia. Aplastic agranulocytic anemia with death occurred in one of Lennox's patients. Daily dosage recommended is as follows: infant 0.3 gm.: children two to four years of age, 0.6 gm.: five years and above, 0.9 gm. Amounts may be increased to a maximum of three times those mentioned. Its effectiveness in the treatment of petit mal was first reported by Perlstein.[26]

ANTIHISTAMINIC AGENTS

Within the past few months two new drugs have become available for the treatment of the allergic diseases. These are Benadryl and Pyribenzamine. Within a short space of time numerous articles have appeared in the literature regarding these drugs which are considered to be effective in their capacity as histamine antagonists or antihistaminic agents. An excellent review of the literature and a comparative study of these drugs has been published by Feinberg.[10] The dosage of Benadryl that is recommended is 10 to 20 mg. for infants and 25 mg. for children up to eight or ten years of age. Higher doses of Pyribenzamine are tolerated by children, most of them taking 25 to 50 mg. Feinberg reported that Benadryl and Pyribenzamine are useful symptomatic remedies in the treatment of the urticarial dermatoses, atopic dermatitis (flexural and infantile atopic eczema), reactions to penicillin and sulfonamides, some other types of dermatitis and seasonal hay fever. In the latter syndrome Feinberg found Pyribenzamine to be more effective than Benadryl. The usefulness of these drugs against perennial vasomotor rhinitis and asthma was more limited and Pyribenzamine appeared to be the more effective of the drugs against these manifestations. Both drugs have a high incidence of side reactions, among which sedation and drowsiness are more commonly observed, and Benadryl seems to be a greater offender in this regard both as to frequency and intensity of reactions.

In using these histaminic antagonists, one should realize that the improvement is only temporary and that many patients do not respond to the drugs. These agents will not replace the more permanent methods of treatment of allergic disorders, i.e., elimination of the offending agents and desensitization.

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EDITORIALS

A Stronger Front Against State Medicine

Now that the 1947 Legislature has convened and Governor Warren has announced his new attempt to foist a compulsory health insurance scheme on the people of California, the obligation of medicine has again been made clear. It is up to the medical profession to protect the citizens of the state from the deleterious effects that the Governor's program would have on the health of the people.

Medicine's answer to state medicine was reaffirmed at the outset of the campaign in the state Legislature in 1945. It was in the form of a program of public education in the wholesomeness of voluntary prepaid health insurance as exemplified by California Physicians' Service. That program grew in effectiveness as the profession provided the funds necessary to carry it out.

Behind the program is the authority of experience. Several years before politicians began to look upon compulsory health insurance as a comfortable vehicle, the medical profession in California had recognized and acted to meet the need for a means by which citizens might forfend the sudden descent upon themselves of overburdensome medical care costs. It is indicative of public attitude that California Physicians' Service, which was established eight years ago as a voluntary medical care prepayment plan to meet that need, has had a greater enrollment of new members in the two years since Governor Warren first began plumping for compulsory health insurance than it did in the preceding six years of its existence. Supporters of the Warren scheme who found it easy in 1945 to scoff at a C.P.S. membership of 100,000 as inconsiderable will have difficulty in explaining the increase to a present enrollment of more than 400,000 during a time when it must have been obvious to all enrollees that another attempt would be made to push through a compulsory health insurance measure. Moreover, commercial insurance companies have recorded a similar growth on a much larger scale and it is safe to estimate today that probably half the citizens of California have already acted to protect their resources against the rainy day of the need for medical care.

Fortunately, business, agriculture and other interests have shown such an overwhelming opposition to the health insurance plans of the chief executive that the job of combating compulsion will not fall entirely on the shoulders of the doctors. Medicine does not want a system of state medicine because of the degeneration of medical practice which would follow. Business does not want new taxes, nor does it want a start made on the regimentation of private enterprise. Agriculture also falls into the private enterprise class, and the many others who came forward in 1945 have equally good reasons for opposing this start at sovietizing our economy.

These figures and facts cannot be laughed off by even the most ardent advocate of state-ism. They are an expression of public attitude and they add to the record of public repudiation of controlled economy. There are some things in government of which the public has "had enough."

Now the governing bodies of the California Medical Association have voted to oppose the 1947 version of compulsory health insurance in the state capitol. In addition to having many strong allies in a struggle against compulsion, medicine in its own organization is much better equipped to fight than it was in 1945. During the intervening two years, medicine has solidified its ranks. It has accumulated much experience in meeting the left wing thrust of government regulated economy. It has gathered many friends and it has equipped itself financially to mount a counterattack. The determination to defeat the measure is the same as it was two years ago. The prospect that this can be done is at least as good as it was then, if not better.

Antihistaminic Drugs and Nasal Vasoconstrictors

The widespread existence of various allergic manifestations has been a frustrating problem to both doctor and patient because so often the symptoms are difficult to control or prevent. The reward to the patient for having undergone a long series of tests and "shots" often has not, in the overall picture, been commensurate with the time, the patience and the money he has expended. It is understandable, then, that he and the doctor, too, will readily grasp for any short-cut that might afford symptomatic relief.

Such "short-cuts" are three new antihistaminic drugs: benadryl, pyribenzamine and the less known anthallan. The three are entirely different chemical compounds.

Benadryl (B-dimethylaminoethyl benzhydryl ether hydrochloride) has had the largest clinical trial. It is said to be an antiallergic, antispasmotic agent. It's use has been claimed successful in vasomotor rhinitis, hay fever, drug sensitization, serum reactions, urticaria, dysmenorrhea, asthma, pruritus (associated with dermatosis) and other conditions that have an allergic factor in their origin. It's side effects are drowsiness, gastro-intestinal irritation, dizziness, weakness and lassitude.

Pyribenzamine hydrochloride (N'-pyridyl-N'-benzyl-N-dimethylethylene diamine hydrochloride) is said to be an antihistaminic substance and, to a lesser extent, antispasmodic. It has been reported of benefit in urticaria, seasonal and non-seasonal allergic rhinitis, seasonal bronchial asthma, non-seasonal extrinsic bronchial asthma, pruritus ani, contact dermatitis and allied allergy diseases. It's side effects are drowsiness, nausea, headache, dryness of the mouth, nervousness and occasionally abdominal discomfort.

Both benadryl and pyribenzamine are palliative only and symptoms tend to recur when these drugs are discontinued.

Anthallan (3'-di (n-butyl) aminomethyl 4, 5, 6 trihydroxy-benzo-(1, 2-c) furan-1' (3')-one), is presumed to be useful in seasonal and non-seasonal allergic rhinitis, urticaria, papular urticaria and neurodermatitis disseminata. The experimental study of this drug has not, thus far, revealed its mode of action. It seems to possess weak antihistaminic activity, but whether or not this is sufficient to explain the therapeutic effect is still to be determined. The only side effects reported are gastrointestinal irritation, diarrhea and a fine macular rash (one case). It is alleged that it is not only palliative but also renders a beneficial effect for an indefinite period when the drug is discontinued.

A number of spectacular successes reported from the first of these drugs (benadryl) produced a run on the supply of it. Both doctor and patient went overboard and the slightest suggestion of an allergic manifestation called for benadryl or the newer pyribenzamine.

What was predictable is now a reality. Often, symptoms instead of the disease were being treated. As in the current, unchecked use of over-burdened penicillin, the intermediate step of making a diagnosis was at times, being by-passed.

The same situation in many ways applies to the use of nasal vasoconstrictors. At the slightest mention of a stuffy nose, some form of nasal vasoconstrictor often has been prescribed without adequate determination of the cause of the obstructed nasal breathing. The great variety of proprietory nose drop preparations bespeaks for the vulnerability of both users and prescribers.

Formerly, oily nose drops were recommended. Now that it has become apparent that prolonged use of oily drops can produce a lipoid pneumonia, vasoconstrictors in a saline menstrum are being prescribed.

It is as illogical to treat nasal complaints on a symptomic basis as it would be to treat cases of gastric distress, potentially ulcerous or neoplastic, with bicarbonate of soda.

Because the exact indications for nose drops have not been sufficiently outlined and the bad effects from their long continued use not emphasized, many patients have become nose drop habitues. The initial prescription given affords such symptomatic relief that the patient believes this to be a beneficial "treatment." From here on he may take over on his own and order himself bottle after bottle of the nasal medicament. He may even add insult to injury by using self nasal irrigations, constantly depleting his nose of its protective mucous secretion.

Obstructed nasal breathing may be due to some simple mechanical defect or to a more serious neoplasm. But more often it is caused from a swelling of the turbinates. Such swelling is most commonly the result of irritation from the drainage of infected sinuses or of nasal allergy. Long continued use of nose drops in both these conditions is harmful. In the former, the symptomatic relief afforded the patient causes him to neglect the disease. In nasal allergies, it actually makes the turbinal swelling worse, for when the vasoconstriction wears off and vasodialation ensues, there results a further increase in capillary permeability, a further waterlogging of the nasal turbinates and a more distressing nasal obstruction. Also, there are unhealthy general side effects from these ephedrine-like synthetic preparations which, when dropped into the nose, at times produce a rapid pulse, elevation of blood pressure, sleeplessness and nervousness.

The unequivocal indications for the use of nasal vasoconstrictors are few. They include: *acute* rhinitis and *acute* sinusitis that are accompanied by *nasal obstruction* (routine use in such cases that do *not* have nasal obstruction is not indicated); acute swelling of the Eustachian tubes accompanied by nasal obstruction; the nasal obstruction present during airplane flight (as a prophylactic measure against aero-otitis media and aero-sinusitis); the obstructed noses of infants whose feeding becomes difficult without nasal airation.

An attempt is being made to popularize nose

drops that contain sulfa drugs or penicillin. In spite of the few favorable reports that have appeared in the literature, their beneficial effect is far from proved. In some individuals, they may even be harmful in that they may produce an irritation of the nasal mucosa, may inhibit the normal action of the mucosal cilia or lead to sensitivity to the drugs.

It is acknowledged that the antihistaminic drugs and the nasal vasoconstrictors have a field of usefulness. But let us not allow them to throw us into the path of "drug store" medicine. Though our failures for successful treatment in many patients with allergic and other chronic nasal problems are discouraging, the basic principle, to treat the cause rather than the symptoms, still holds.

Surveys for 1947

One of our national characteristics is a tendency to rush headlong from one fad to another. Surveys and analyses of all types might be classified as the Fad of the Forties. They make life interesting and are said even to stimulate business—especially for the surveyors. However, physicians, being educated and conservative souls, might well pause and reflect a little between projects, however meritorious.

We have had surveys of school children's chests throughout the country, at considerable expense and with very little yield. We have had surveys of adults' chests for communicable pulmonary tuberculosis, a worthy project and one which should be continued. Now we are informed by highly placed personages that there should be stomach surveys for cancer in males over 40.

To be at all valuable, gastric surveys would need competent attention and the use of both roentgenoscopic and roentgenographic studies. Do we have enough trained physicians and unexposed celluloid to permit this? The answer at the moment is no. Perhaps, then we should have routine *gastroscopic* surveys of all males over 40. Again, do we have enough gastroscopists and flexible tubes? The answer again is no.

Now, heart disease is much more frequent than cancer. Should we not have electrocardiographic surveys of everyone over 30? And annual cardiac function tests?

Having completed heart surveys, should we then initiate ocular and reaction-time tests on all automobile drivers? Envisage the reduction in highway mortality and morbidity if all drivers were required to have such simple tests. Perhaps those Health Associations which initiate so many surveys are lax in not calling upon all ophthalmologists and psychiatrists to conduct such tests.

After surveys have been completed, a certain number of cases of active pulmonary or heart disease, or gastric cancer, or defective vision, or delayed reaction-time will be discovered. Then what? Should we call upon general practitioners plus specialists to provide mass treatment at cost or below cost for such persons? If we have insufficient beds or isolation facilities for people with cardiovascular disease and contagious lung conditions will not our survey result in considerable unnecessary psychologic as well as physical hardship?

"Festina lente" was the motto of a surveyor many thousand years ago. Perhaps our survey-rabid welfare and health associates should pause and reflect upon it.

CLINICAL CONFERENCE

The Present Status of Epilepsy

FROM THE DIVISION OF NEUROLOGY, UNIVERSITY OF CALIFORNIA MEDICAL SCHOOL

EPHRAIM ROSEMAN,* M.D., AND CHARLES D. ARING,† M.D.: In the past as today, epilepsy has been and is incomprehensible, not only to the laity but also to many of the medical profession. Epilepsy is a disorder with relatively few objective signs and the diagnostic criteria are not always clear. As Lennox[4] has pointed out, much of its bad name has been due to misunderstanding of the nature of the disorder as well as to misconceptions about the therapeutic approach. Many people including members of the medical profession regard the illness as hopeless or as an incurable horror. This fear, for essentially that is what it is, may spring partly from the fact that the convulsion is not pleasant to witness; too, epilepsy has been wrongly considered by many to be synonymous with feeble-mindedness or mental illness. It should be stressed that most persons suffering from epilepsy may lead normal, happy lives, and function as mature people, if they are allowed an understanding of their problem and given the proper medication.

DEFINITION

The word *epilepsy* is derived from the Greek word for seizure. Although the word *seizure* is frequently used as a synonym for convulsion, some types of epilepsy are recognized which are without convulsion. Physiologically, epilepsy may be defined as a tendency to periodic involuntary neuronal explosions. In the murkiness of present-day ignorance, superstition, and fear, epilepsy for the sufferer may be defined as a state of continuing dread interrupted by recurring attacks of involuntary behavior. This behavior may be associated, temporarily to be sure, with mental or physical disturbances or both.

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INCIDENCE

It is not generally known that the incidence of epilepsy is about the same as that of diabetes or tuberculosis. Approximately 0.5 per cent of the population of the United States have clinical epilepsy. Lennox[4] estimates that there are between 500,000 and 700,000 epileptics in this country. In his study of a group of 1,750 patients, there was estimated to have been a total of 3,900,000 seizures, an average of about 2,300 seizures per patient. Of these nearly 4,000,000 seizures, 71 per cent were petit mal, 26 per cent grand mal, and 3 per cent psychic seizures. It may be seen that the frequency of grand mal convulsions is not great relatively, and that it behooves the physician to know the other types of attack. It should be mentioned that as the result of the recent war many more epileptics will appear in the wake of injuries to the brain.

Reference to Table I will show the incidence of various types of clinical seizures and combinations thereof among 1,260 epileptic patients of various ages studied by Gibbs, Gibbs, and Lennox.[2] It may be seen that petit mal is essentially a disease of childhood, to be found rarely after the age of 30. Psychomotor epilepsy becomes more frequent in adulthood. Grand mal epilepsy remains relatively constant in frequency throughout the years of life.

It should also be noted that individuals may have more than one type of seizure. It is not at all unusual for an individual to give a history of petit mal epilepsy in childhood and to develop

TABLE 1.—*Clinical Diagnosis*

	Petit Mal		Petit Mal and Grand Mal		Grand Mal		Grand Mal and Psychomotor		Psychomotor		Petit Mal, Grand Mal and Psychomotor		Focal		Total	
Age, Yr.	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
0-4	10	20.0	3	6.0	31	62.0	0	0	1	2.0	0	0	5	10.0	50	100
5-9	26	25.2	12	11.7	46	44.7	3	2.9	6	5.8	1	1.0	9	8.7	103	100
10-14	27	17.1	35	22.2	71	44.9	9	5.7	9	5.7	0	0	7	4.4	158	100
15-19	15	6.8	46	21.1	113	51.6	12	5.5	16	7.3	6	2.7	11	5.0	219	100
20-24	4	2.3	39	22.5	93	53.8	10	5.8	18	10.4	4	2.3	5	2.9	173	100
25-29	6	4.3	18	13.0	79	57.2	14	10.2	12	8.8	5	3.6	4	2.9	138	100
30-34	2	1.9	13	12.1	65	60.7	14	13.1	8	7.5	1	1.0	4	3.7	107	100
35-39	2	2.0	4	4.1	63	64.3	15	15.3	10	10.2	1	1.0	3	3.1	98	100
40-44	1	1.5	3	4.5	42	63.7	8	12.1	7	10.6	0	0	5	7.6	66	100
45-49	0	0	4	7.7	34	65.3	3	5.8	3	5.8	1	1.9	7	13.5	52	100
50-54	0	0	3	6.8	33	75.1	4	9.1	2	4.5	0	0	2	4.5	44	100
55+	0	0	1	2.0	41	78.8	2	3.8	3	5.8	0	0	5	9.6	52	100
Total	93	7.4	181	14.4	711	56.4	94	7.5	95	7.5	19	1.5	67	5.3	1,260	100

grand mal or psychomotor attacks, or both, in adolescence or adulthood.

In the series quoted 16.5 per cent of epileptics had psychomotor seizures alone, or in combination; as years go by and as the acuity of the physician is increased, it will be noted that the incidence is even higher. For example, is was found[9] in a study of 1,000 epileptics in the Army that the incidence of psychomotor epilepsy was 26 per cent, alone or in combination.

CLINICAL TYPES OF EPILEPSY

Strictly speaking there are no two attacks which are alike, but for purposes of simplification three types of epileptic seizures may be described: grand mal, petit mal (pyknoepilepsy), and psychomotor epilepsy (psychic equivalents, epileptic equivalents, epileptic fugue states).

Grand mal epilepsy. The grand mal attack may take an almost unlimited variety of forms; that which is most commonly recognized is the tonic-clonic convulsion, which is usually thought of by everyone as synonymous with epilepsy. It is of vital importance to recognize that a grand mal convulsion may be either tonic or clonic or both, or atonic. It may begin and remain focal; it may begin focally and spread according to a physiological pattern without the loss of consciousness (jacksonian epilepsy), or rapidly or slowly become generalized accompanied by loss of consciousness. Single attacks of epilepsy may occur at widely separated intervals (months to decades), in bursts of two or more at frequent intervals, or in groups of rapidly repeated seizures without return of consciousness between the seizures (status epilepticus). Status epilepticus is dangerous and measures must be taken to stop the attack or death may ensue. Fits may last but a few seconds, or continuous jerking of a part may occur over long periods of time (epilepsia partialis continua). Seizures may even take the form of sensory attacks which frequently merge into motor manifestations, but less frequently remain entirely sensory. Convulsions may be followed by no ill effects or severe prostration.

Petit may epilepsy (pyknoepilepsy). The petit mal type is characterized by momentary lapses of consciousness, usually lasting from 5 to 30 seconds. Generally the sufferer does not fall. To the inexperienced there may be no outward manifestations; however, if one watches closely there may usually be seen a rhythmical 3 per second blinking of the eyes, occasionally twitching of the face, and at times of the upper extremities, rarely of the lower extremities. During the spells the patient usually ceases any activity with which he may be occupied; he may drop things, stare fixedly into space, or lose his place while reading or speaking. There may at times be blushing or pallor of the face, and a glassy appearance to the eyes. The patient is usually transiently unconscious and has an amnesia for these episodes, but the latter is by no means constant. An occasional patient is seen who after a proven petit mal seizure is able to answer questions coherently and relevantly, and tell exactly what happened in his environment while he was having the attack.

The term *pyknoepilepsy* (frequently petit mal) is preferable to the term *pyknolepsy*, as the latter may be incorrectly thought to be akin to narcolepsy. Pyknoepilepsy is true petit mal epilepsy. This form will not be confused diagnostically with the psychomotor type, if it is remembered that petit mal is usually of brief duration, 5 to 30 seconds, and not associated with automatic, purposeless movements or activities.

Psychomotor epilepsy (psychic equivalents). The use of the electroencephalograph in the study of problem children[3] has elucidated the dynamics of psychomotor epilepsy, perhaps the most interesting of all the epilepsies. In the past, sufferers of psychomotor epilepsy were almost without exception called hysterical. Today it is realized that this class of epileptics may be potentially dangerous; they may and have carried out violent activities including homicide, for which at the present moment they are not responsible in the eyes of the law and medicine. Yet it is this group which is probably most amenable to therapy. Briefly, these episodes are characterized by periods during which automatic activity is carried on, usually accompanied by changes of emotion (especially anger), and for which the patient has a complete amnesia. The attacks vary greatly in duration and frequency. No two epileptics with the psychomotor pattern have the same type of spells; in fact, the same individual may not have a repetition of similar episodes. Two examples are cited to illustrate the atypical behavior of the psychomotor type of epilepsy.

Case 1. A 21-year-old man took his girl friend to a theatre. In the middle of the picture he suddenly arose and left. On his arrival home, he was unable to recall his abrupt departure from the theatre. On several occasions he had been told that he said or did peculiar things, such as speak in jargon or answer questions entirely irrelevantly. Occasionally he had run after an automobile on the street, barking like a dog. For these episodes he had a complete amnesia.

Case 2. A 48-year-old man frequently did "peculiar things." On one occasion while he was in a dental chair he suddenly arose and attempted to climb the walls, muttering strangely. The attack lasted about three or four minutes.

Several homicides occurring during a psychomotor seizure have been reported. Many of these patients seen in the Army have usually come from the guard house where they had been incarcerated charged with stealing, murder, and other crimes.

ETIOLOGY

Table 2 shows the associated or underlying disease in 364 epileptics studied in the Army; the data would hold equally for any large adult civilian series. It may be seen that more than 75 per cent of epileptics are of the so-called idiopathic or essential type, that is, those in whom no associated condition may be found.

With the use of the electroencephalograph (Figure 1), it may be found that 90 per cent of epileptics have paroxysmal cerebral dysrhythmia in the

interseizure period. The incidence of abnormal brain waves in the normal population is 10 per cent. Judgment about the electrical potential of the brain is based mainly on two factors: frequency and amplitude of the sinusoidal fluctuation. Within frequencies ranging from 8.5 to 12 per second may be found 90 per cent of the normal population. In frequencies outside this range is found predominantly the epileptic population. The occurrence of any type of paroxysmal burst is about 30 times

TABLE 2.—*Associated or "Underlying" Causes in 364 Epileptics* *†*

Total	"Idiopathic"	Head Injury	"Rum Fits"	Migraine	Birth Injury	Cerebral Thrombosis	Tumor	Subdural Hematomas (Acute)	Other "Causes"
364	282	34	12	7	6	6	6	2	9
Per cent	77.5	9.3	3.3	1.9	1.6	1.6	1.6	0.6	2.6

* 311 males; 53 females. † 49 of 364 gave family history of epilepsy.

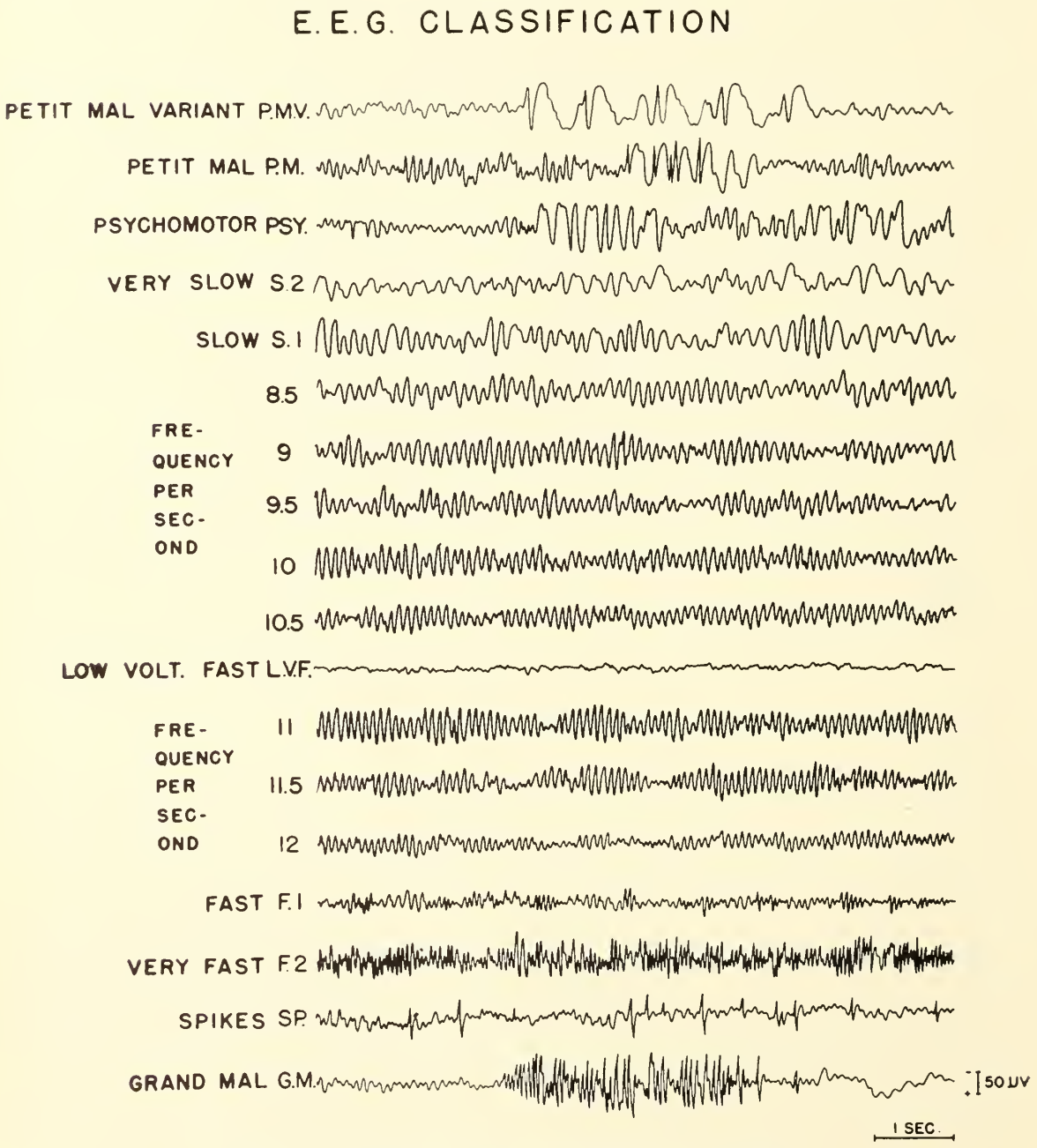


Figure 1.—Electroencephalographic classification of the epilepsies.

more frequent in an epileptic subject than it is in a normal subject. If such a record be obtained in an epileptic during sleep, paroxysmal dysehythmia will occur almost without exception.

Hereditary factors in epilepsy have gained advocates[1] with the advent of the electroencephalograph. With the use of this instrument, Lennox, Gibbs, and Gibbs[6] have studied the brain wave pattern of epileptics and their blood kin (parents, siblings, and children). Abnormal records were obtained in 60 per cent of the relatives of patients, as contrasted to 10 per cent of a control group who had no near relative with epilepsy. In 35 per cent of epileptics both parents had a cerebral dysrhythmia, and in 95 per cent of the epileptic group at least one parent had abnormal records. In this study it was thought that the evidence indicated that the dysrhythmia of epilepsy was inheritable, and that such dysrhythmia when demonstrable may represent a predisposition to epilepsy.

The same authors studied the electroencephalographic records of a large group of twins, monozygotic and dizygotic. Among the dizygotic twins tracings were found to be unlike in 95 per cent and alike in 5 per cent. In the monozygotic twins the tracings were judged to be identical in 85 per cent, not identical in 4 per cent, and in 11 per cent the identity was in doubt.

The authors concluded "These results suggest that the brain wave pattern is an hereditary trait, and in the absence of an acquired condition which may have modified the brain wave pattern, . . . the electroencephalogram may be used in human genetic studies and in the tracing of heredity of neuropsychiatric diseases associated with cerebral dysrhythmia."

Epilepsy should not be associated with imbecility. In a study[4] of the records of nearly 2,000 clinic and private patients with epilepsy it was found that the intelligence of 67 per cent was average or above average, 23 per cent slightly below average, and only 10 per cent grossly deficient. These figures compare favorably with those of the population in general.

The impression that repeated fits may lead to mental deterioration may be explained by the following factors alone or in combination: (1) Following a convulsion many epileptics are confused or slowed mentally for a period of time varying from minutes to days; (2) If an individual has a large number of seizures, the possibility of brain damage occurring is great. However, with modern therapy there is no excuse for most epileptics to have frequent seizures; (3) In the past, epileptics were controlled by the use of large quantities of sedatives, such as bromides and barbiturates, sedating the patients to the point where they were not clear mentally. With the advent of modern anti-convulsants, sedatives have played a smaller role, and this factor has assumed lesser importance in the production of mental malfunction.

USE OF THE ELECTROENCEPHALOGRAPH IN EPILEPSY

In the past much stress has been placed on the use of the electroencephalograph as a diagnostic procedure in the study of epilepsy. Now that we have gained more insight less importance is placed on the electroencephalograph from the diagnostic standpoint. There is nothing specific or pathognomonic about the electroencephalograph in epilepsy or in any other condition. Its clinical use should be limited to its application as an adjunct in the study of the unusual conditions (variants of pyschomotor epilepsy) or as a confirmatory factor. Its most valuable use is in prognostic and therapeutic studies. In well over 80 per cent of epileptics it is not necessary to have an electroencephalographic tracing to confirm the diagnosis.

In the study of the less familiar types, such as the psychomotor epilepsies, it is frequently of importance to have electroencephalographic tracings in serial fashion. The psychomotor group notoriously have a high incidence of electroencephalographic normality in the interseizure period. However, if serial records are taken daily or weekly, it is at times possible to predict the occurrence of a fit. As epilepsy is an episodic disease clinically, a similar reaction would be expected electrically.

We believe that if a sufficient number of electroencephalograms are taken on the epileptic subject, attempting to obtain one of them just before or after an ictus, the percentage of electroencephalographic abnormality would approach 100 per cent.

Figures 2, 3, 4, and 5 demonstrate electrically the three main types of epilepsy. In the grand mal type (Figure 2) there are rapidly recurring spikes of a frequency of about 30 per second which tend to appear in a crescendo-diminuendo fashion. The petit mal type (Figures 3 and 4) is characterized by the rhythmical three per second dart and dome activity or spike and slow waves. The type of pattern seen most frequently with psychomotor epilepsy (Figure 5) is characterized by the appearance of high voltage, irregular, square-topped 4 to 6 per second waves with 14 to 16 per second waves engrafted thereon and positive (downward deflection) spikes.

TREATMENT

The therapy of epilepsy may be divided into three phases: specific, general, and social-psychiatric.

Specific. Innumerable drugs have been tried in epilepsy. We believe the best to be dilantin sodium, the anticonvulsant properties of which were first described by Merritt and Putnam[7]; it is unique among the anti-convulsants in that it has no sedative action. Properly used, it has been found to be extremely efficacious in the treatment of both the grand mal and psychomotor attacks of epilepsy, but of little or no value in petit mal.

Dilantin at the present time is the sheet anchor in the drug therapy of epilepsy. Treatment is usually begun by administering a single capsule of dilantin (0.1 gram) after dinner for three to seven days, gradually increasing the dosage by one capsule weekly, until the seizures are brought under control. By administering the drug in this manner, some of the annoying toxic reactions such as ataxia, drowsiness, blurring of vision, morbilliform rash, and the more occasional fever and gastric distress may be avoided. Six capsules (0.6

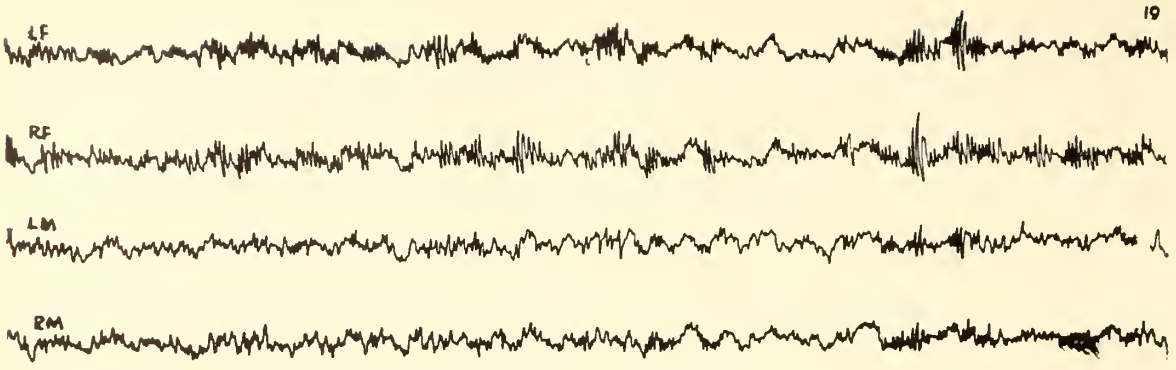


Figure 2.—Grand mal epilepsy.

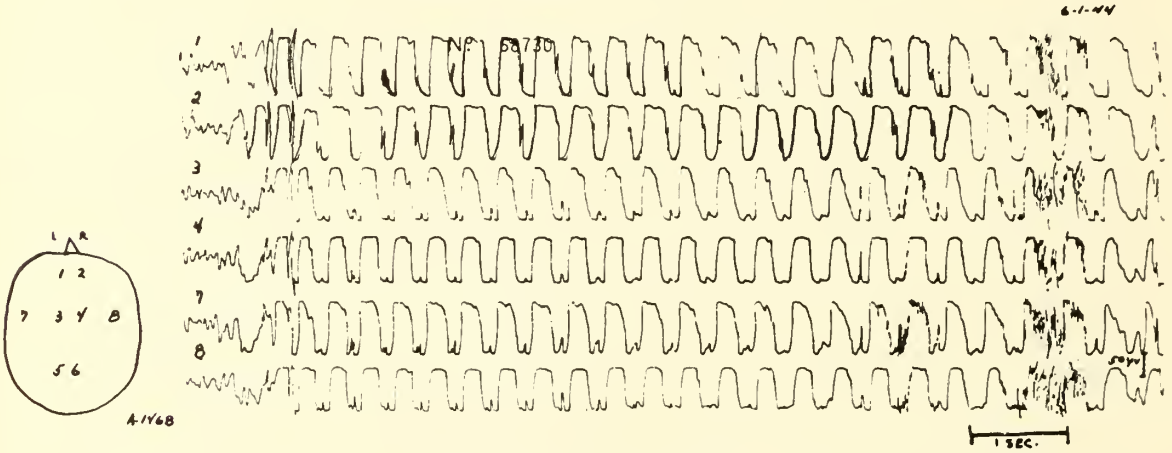


Figure 3.—Petit mal epilepsy.

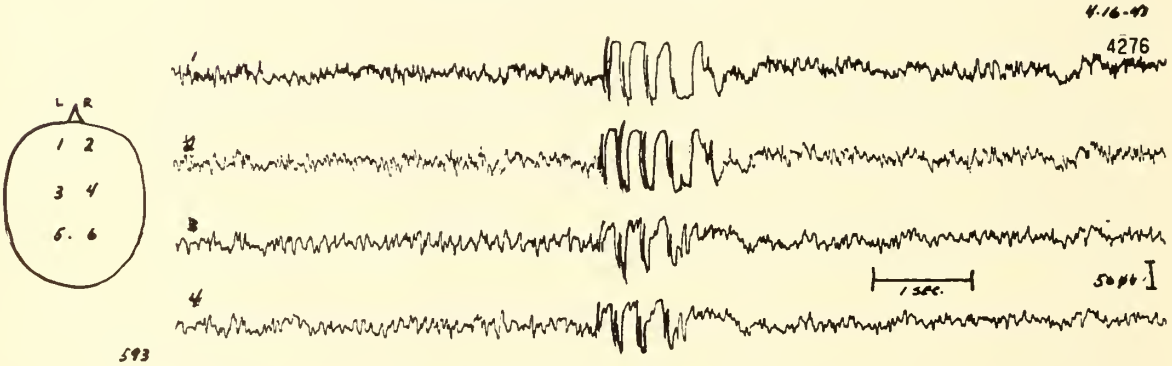


Figure 4.—Petit mal epilepsy.



Figure 5.—Psychomotor epilepsy.

gram) should be the maximum allowed the adult per day. Dilantin sodium is strongly alkaline and must be taken during or immediately after meals to prevent gastric distress. If untoward effects are manifest, it is best to reduce the dose by a single capsule. The usual, minimal, daily effective dose in the adult is three capsules (0.30 gram), and this amount may be administered on the first visit if rapid results are required.

The most common reason for failure of dilantin therapy is that the physician does not use the drug in large enough amounts. Also it may require several months of medication before the patient is adequately controlled. If, however, the maximum amount of dilantin (to the point of toxicity) is given and therapeutic effects are wanting, then another anticonvulsant drug may be tried. This usually should be phenobarbital, the dosage and administration of which is identical to that of dilantin. When neither of these drugs is effective alone, the combination of the two may be quite effective. In a small percentage of cases of grand mal epilepsy the combination may be ineffective. Then the phenobarbital should be *gradually* reduced and the administration of another anticonvulsant, possibly mebaral, initiated in combination with the dilantin.

Once the patient has been established on an anticonvulsant, it should never be completely withdrawn suddenly. Sudden withdrawal will almost certainly produce convulsions in the susceptible person, and in the case of withdrawal of phenobarbital fits may occur in those persons who never before had them. Probably there is no more certain way to induce the dread status epilepticus in the person with convulsive diathesis. If it becomes necessary to withdraw one of the drugs it must be done quite gradually over a period of about two months, and in the person subject to epilepsy another drug is substituted in full dosage at the beginning of the program of withdrawal.

The desired effect in all cases is complete cessation of attacks with a minimum of toxic symptoms. If drug therapy is handled expertly such results may be expected in 90 per cent of patients having grand mal and/or psychomotor seizures.

Hypertrophy of the gums tends to occur with the prolonged use of dilantin, especially in children. This may be largely prevented with proper mouth hygiene, particularly frequent massage of the gums. However, in some instances the excess gum tissue must be excised surgically. Mesantoin, a hydantoin derivative does not produce gum hypertrophy and may be substituted for dilantin if gum hypertrophy is troublesome.

Other drugs which may be used in the therapy of epilepsy are methylphenylethyl hydantoin (mesantoin), adminstered in doses similar to that of dilantin; the untoward reactions are somewhat alike. Glutamic acid given in doses of 8 to 16 grams a day has been found by some workers[8] to decrease the number of petit mal attacks. However, it is rather cumbersome to administer, and will probably fall into disuse in view of the gratifying reports with the use of tridione in petit mal. In some cases of petit mal epilepsy benzedrine sulfate has been found to be of value, as has caffeine. These drugs might be given a trial if other substances failed to give relief.

In 1945 Lennox[5] reported the use of tridione in petit mal epilepsy over a period of some 15 months. This drug was administered to a group of 50 patients subject to daily, frequent petit mal, myoclonic, or akinetic seizures not benefited by previous medication. In a period of days to weeks the minor seizures ceased in 28 per cent, were reduced considerably in 52 per cent, and were little affected in 20 per cent. In several patients the seizures, once halted, did not return when medication was discontinued, a feature which has never occurred with other anticonvulsant drugs in any type of epilepsy. In ten other patients with daily petit mal and frequent grand mal seizures, tridione halted or lessened the petit mal, but proved ineffective against the grand mal seizures and in some patients even increased them. The medicine is dispensed in capsules each containing 0.32 Gm. (5 grains). Doses used varied from 1.0 to 2.0 Gm. (15 to 30 grains) a day without much regard for age. The principal untoward effect was that of photophobia. One or two deaths with tridione have been reported; the patient taking this drug should be under close supervision.

It has been our practice, once the seizures are under control to continue the anticonvulsant medication for a period of three to five years, even though no seizures are experienced. Only then may the anticonvulsant drug be gradually reduced over another one or two years.

The expense of drugs in the treatment of epilepsy is not great; Table 3 shows the relative cost of various anticonvulsant drugs. It should be noted that the use of a drug under its chemical name saves from 50 to 100 per cent in the yearly cost.

Treatment of Status Epilepticus. Status epilepticus is a dangerous condition, these repeated convulsions must be halted if the patient is to survive. The most efficacious drug which has controlled the convulsions of practically all patients suffering from status epilepticus is paraldehyde, which is administered by intravenous injection of 2 cc. or more. The results by this route are more rapid than those with intramuscular or rectal administration; the latter may be used with doses of 8 cc. and 16 cc. respectively. If paraldehyde is not available, sodium phenobarbital or sodium amytal in doses of 7.5 grains (0.5 gram) to 15 grains (1.0 gram) may be administered intravenously. Morphine, drop ether, or chloroform may be effective. It must be stressed that repeated convulsions may not be halted by the homeopathic administration of drugs; large quantities are necessary. After the administration of one of these drugs, it is well to place a tube into the stomach (via the nose) and to give 1.5 grains (0.1 gram) of dilantin every four hours along with nutritious fluids until the seizures are under control. The fluids will help to relieve the fever which always develops with repeated convulsions and will permit a somewhat more rapid recovery.

In modern conceptions of the treatment of epilepsy, diet and dehydration play little part. The ketogenic diet is extremely distasteful and prac-

TABLE 3.—*Yearly Cost of Drugs Used For Epilepsy*

	Quantity Bought & Price	Daily Dose Grams	Daily Dose Grains	Cost Per Year
Phenobarbital, 0.1 gm. (1½ grain) tablets	100 @ $0.75	0.1	1½	$2.75
Luminal (phenobarbital, Winthrop), 0.1 gm. (1½ grain) tablets	50 @ 1.25	0.1	1½	9.10
Phenobarbital elixir	16 oz. @ 1.50	0.1	1½	26.30
Sodium bromide 0.65 gm. (10 grain) tablets	1000 @ 2.90	3.0	45	4.75
Sodium bromide solution	6 oz. @ 0.80	3.0	45	18.25
Diphenylhydantoin sodium, 0.1 gm. (1½ grain) capsules	100 @ 1.20	0.3	4½	13.20
Dilantin sodium, 0.1 gm. (1½ grain) capsules	100 @ 2.00*	0.3	4½	21.90
An "epilepsy cure" **	4 weeks' supply	Unknown		50.00

* The retail price in Boston drug stores is from $1.75 to $2.50.
** Including cathartic and other unimportant ingredients.

tically impossible to administer, and even under the most favorable circumstances controls only a very few cases (usually children). The question about limitation of fluid intake in epileptics is not a particularly important one.

GENERAL

There can be no question that alcohol encourages an increased incidence of convulsions; it must be rigorously forbidden in any form. Inactivity is contraindicated, and it is rather well known that the epileptic in good physical condition has fewer and less severe attacks than one who is out of condition; therefore a program of physical work or exercise is advisable for these people. An epileptic gets along better if he is employed than if he is not, and schooling should be continued if it is at all possible.

Social-Psychiatric: Once the diagnosis of epilepsy is made, some attempt to acquaint the patient with his disease should be made. The need for dissemination of the latest information concerning epilepsy is emphasized; the patient should be encouraged to partake in the activities of the American Epilepsy League* whose primary purposes are the education of the public toward a more sympathetic and intelligent understanding of epilepsy, and the stimulation of research.

A program of reading** concerning epilepsy should be suggested to the patient. It should be stressed that epilepsy is a most individualized disorder and that some of the conditions which apply to other patients may not apply to him.

It should be pointed out to the patient that he may not be employed in occupations which expose others or himself to danger, e.g. (1) require him to operate a vehicle (many states have laws which forbid epileptics to obtain a license to operate a motor vehicle, (2) work in high, exposed places, or (3) the manipulation of complicated or exposed machinery.

It has been our experience that an epileptic invariably becomes a cooperative and grateful patient, and not infrequently acts as a spearhead in the attack against social ostracism by attempting to educate not only himself but his family, friends, and even his physician.

The relationship between emotional factors and fits has been recognized for centuries. Relief by psychological approaches has been noted by many, and reports of occasional cures of epilepsy by psychotherapy are factual and based on sound principles. The passive excommunication of these subjects from the community is psychologically traumatizing, as are the other restrictive techniques that have been applied to these patients by their family, friends, and well-meaning physicians.

It is only by the education of the medical profession that we may hope to relieve the misery caused by this very important disease. As has been mentioned previously, epilepsy is a problem of the magnitude of tuberculosis or diabetes. Moreover, with the aid of the electroencephalograph it has been demonstrated that for every overt epileptic there are twenty carriers, in other words 20 people with an epileptic diathesis. Yet this problem has been given less publicity and is the subject of less research than either tuberculosis or diabetes. A disease which ramifies through the population as does epilepsy deserves much more attention than it at present obtains.

* The Headquarters of the American Epilepsy League are Room 405, 50 State Street, Boston. The League is a non-profit organization, established primarily for dissemination of useful information concerning epilepsy to the laity.

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CALIFORNIA MEDICAL ASSOCIATION

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FOR COMPLETE ROSTER OF OFFICERS, SEE ADVERTISING PAGE 4

NOTICES AND REPORTS

The Physician's Part in Health Week Campaigns

With the 1947 Voluntary Health Insurance Week campaign well under way, the California Committee for Voluntary Health Insurance will as in 1946 rely to a great extent upon the physicians' cooperation, both as individuals and as groups, for continuance of the successful staging of Health Weeks in the remaining 32 Counties.

The Committee reports that during the 1946 campaign no single factor contributed more to the wholehearted response to Health Week than the teamwork of the medical profession.

Just how does the doctor, whether behind the scene or on the front page help to further Health Week success?

Approximately five weeks before the start of Health Week in a county, representatives of the California Committee and the California Physicians' Service begin the "visible" organization of the county's campaign. They first approach the doctors, who, experience has proven, are the best door-openers in the community, and ask their assistance in mapping the over-all strategy.

A physician's steering committee of from five to fifteen doctors is appointed by the president of the County Medical Society, who either himself acts as chairman or names another doctor from the group to that post. Pictures are taken of the committee and released to all newspapers in the county on the eve of Health Week.

The California Committee reports that editorial acceptance of the physicians' pictures and stories has generated more Health Week momentum than any other campaign element.

Members of the doctor's committee are asked to secure speaking dates before and during Health Week at the local service clubs such as the Lions, Kiwanis and Elks. Prepared speeches approximately fifteen minutes in length are used unless the physician prefers to write his own.

Here again the attendant publicity is highly complimentary to the medical profession. In Ventura County, one doctor had speaking engagements before two different clubs during Health Week and both speeches were given front page news treatment.

Doctors who are friends of "key men" in the community are asked to contact these leaders or smooth the way for a representative of the California Committee.

The mayor of each sizable community is called upon by a doctor and asked to proclaim Voluntary Health Insurance Week, a proclamation which is publicized the first day of the Week. That more than 70 mayors have issued Health Week proclamations is a tribute to the doctors' influence and cooperation.

A physician also contacts a state senator or an assemblyman from the county to serve as Honorary Health Week Chairman.

The main speaker at the Health Week community dinner meeting, which is attended by business, civic, farm and professional leaders, is a physician. Many of the men and women at the community dinner meeting, all invited by the doctors, are excellent prospects for California Physicians' Service membership.

These are the things the physicians can do and are doing to promote Health Week success. They have already received national commendation for their efforts to familiarize the public with the benefits and protection of voluntary health insurance. At the Chicago convention of the American Medical Care Plans, it was the consensus that "we must look to California for leadership."

Assured of the doctors' cooperation and convinced that the doctor can tell his story better and with more authority than anyone else, the California Committee is confident that 1947 will be a banner year for the growth of voluntary medical care programs in California.

1947 Legislative Prospects

With the January meeting of the California State Legislature, medicine again faces the prospect of numerous proposals which would affect the practice of medicine or the public health. Medicine must again be on the alert, responsive to the thinking of its practitioners and zealous in its guardianship of public health standards.

Just what this session holds in store, we cannot foretell. We can, however, do a little conjecturing and a little calculating. By past standards it is likely that some 4,000 or 4,500 bills will be introduced in either the Assembly or the Senate. And it is likely that the usual percentage of about 10 per cent will have a bearing on the public health or on medical practice. That means some 400 or 450 bills to be watched, to be supported or opposed, to be amended, to be passed or to be defeated. That is a program which demands serious attention and prompt action at the proper time.

While the form of all these bills cannot yet be determined, there are signs that several measures of interest to medicine will be forthcoming. The grapevine has it that at least two groups of chiropractors will again introduce bills to establish a licensing board for Naturopaths. Just where chiropractic ends and naturopathy begins is a nebulous area but previous bills of this type have de-

scribed Naturopathy as including *minor surgery, surgery, obstetrics* and various other techniques which to date have not been listed in the curricula of the country's numerous chiropractic schools.

There is also a rumor afloat that a group of chiropodists will again seek to establish their own licensing board. In their last effort these people described chiropody as including all types of treatment, including surgery, on *the foot and leg.* Just where the leg ends has not yet been defined.

Then there are increasing evidences that the old spectre of antivivisection may again be with us. Antivivisectionists have been unusually active in other areas in the past year, notably in New York and the District of Columbia, and it may well be that the old dogs-versus-babies fight will break out in California this year.

There remain various other responsibilities. Should chiropractors be permitted to treat compensation cases? Should chiropractors be allowed to determine eligibility for claimants of disability sickness benefits? Is the C.I.O. planning a compulsory health insurance bill similar to the ill-fated A.B. 449 of the 1945 session? Will there be other proponents of this type of legislation?

Here are some of the problems confronting medicine in the new legislative session. Where and when they will hit, and how hard, remains to be seen. Out of them all emerges only one concrete conclusion: Medicine must continue to be eternally vigilant, flexible, ready for whatever eventuates.

Growing Use of C.P.S. Service by Veterans

During the first nine months of the California Physicians' Service-Veteran Administration program, an average of some 4,000 ailing veterans received medical service each month. Each month there has been an increase in the number of veterans' requests for medical service and a corresponding increase in the number of authorizations for treatment.

During the three-month period, September, October, and November, 10,428 new requests for service were received, and in 8,297 of those cases, treatment by C.P.S. physician members was authorized. In the same period 10,699 renewal authorizations were granted, making a total of 18,996 veteran cases on the books in that period. The amount of service in dollars and cents for those cases through the three-month period was $675,486. It is anticipated that by the end of 1947 more than double that number of cases will be handled in a corresponding period.

When the program went into effect it was the stated aim of C.P.S. to keep to a minimum the amount of red tape which necessarily must accompany such a program. How well this has been accomplished may be illustrated by pointing out that the original C.P.S.-V.A. program began operating under Veterans' Administration Circular No. 26 and today is governed by V.A. Circular No. 235. Although each new circular brought forth new rules and regulations for administrative consideration, C.P.S. has been able to keep the program relatively smooth as far as the exposure to the profession was concerned, finding it necessary to make only two changes in instructions. Both changes are looked upon as liberalizations making for greater convenience for both physicians and veterans.

On recommendation from C.P.S., changes in the eight-page V.A. pension examination form reduced it to one page.

Work is now being done to simplify, if possible, the administrative routine necessary for getting payment for services rendered by C.P.S. physician members. Present requirements demand not only a great deal of paper work but a long wait for the actual payment. Under the present system, proper claim must be presented to the finance department of the Federal Government, which, after close scrutiny and final approval, must in turn petition the Comptroller General for payment. It is this process, which takes some six to eight weeks, at which efforts toward simplification are being aimed.

New Hour for Radio Show

"California Caravan," the radio show sponsored by the California Medical Association, has been moved to a new hour to avoid competition with two highly popular nationally broadcast programs. It is now heard every Friday evening at 8:45 P.M., rather than at the original Saturday evening time. The same 17 Mutual stations are being used.

In its new position "California Caravan" follows the Philco-sponsored Burl Ives show and precedes the popular Glenn Hardy news broadcast.

Changing of the time for "California Caravan" follows the change from daylight to standard time, an annual element which brings about a rearrangement of nationally broadcast radio programs. In the case of the C.M.A. program, the shift from daylight to standard time moved the popular "Hit Parade" and "Gang Busters" into direct time competition. The new Friday evening time is believed to offer a much better opportunity to build and maintain a large listening audience.

In Memoriam

CHIPMAN, ERNEST DWIGHT. Died at San Francisco, December 4, 1946, age 70. Graduate of Yale University School of Medicine, New Haven, Connecticut, 1897. Licensed in California in 1902. Doctor Chipman was a Retired Member of the San Francisco County Medical Society, the California Medical Association, and an Affiliate Fellow of the American Medical Association.

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RIACH, MAY TURNER. Died at San Diego, December 7, 1946, age 60. Graduate of the George Washington University School of Medicine, Washington, D. C., 1913. Licensed in California in 1918. Doctor Riach was a member of the San Diego County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

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VAN PELT, ROSCOE SAMUEL. Died of a heart attack in Guadalajara, Mexico, November 13, 1946, age 65. Graduate of Northwestern University Medical School, Chicago, Illinois, 1909. Licensed in California in 1917. Doctor Van Pelt was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✤

WEST, FRED DONNELL. Died of Cancer at Beaumont, November 24, 1946, age 69. Graduate of Ohio Medical University, Columbus, 1903. Licensed in California in 1910. Doctor West was a Retired Member of the Riverside County Medical Society, and the California Medical Association.

NEWS and NOTES

NATIONAL • STATE • COUNTY

FRESNO

Staff members of the Fresno Community Hospital met recently at a dinner to hear a discussion of digitalis preparations by Dr. Kendall Holmes and of death reports by Drs. K. D. Luechauer and E. A. Patterson. Dr. J. A. Thormann was program chairman.

KINGS

Dr. Lorin Swift has resigned from the staff of the Kings County General Hospital. Dr. Swift, who had been a member of the hospital staff of physicians for eight months, will enter private practice in Los Angeles.

LOS ANGELES

A Westwood campus site for the new U.C.L.A. Medical School has been approved by the regents of the University of California. Funds for the new $7,000,000 medical school were appropriated by the legislature last winter and Robert Gordon Sproul, president, has been instructed by the regents to seek additional funds.

Dr. Frank G. Crandall, Jr., allergist has been appointed chief of staff of the Children's Clinic of the Marion Davies Foundation. Dr. Crandall succeeds Dr. Robert H. Hare. Dr. Crandall was a colonel in the Army Medical Corps during World War II. He served in the South Pacific and supervised allergy clinics in several large army hospitals. Physicians who will serve with Dr. Crandall as staff members during the coming year include: Robert Shirley, Charles Row Hartley, G. Dewey, William G. Patton, J. R. P. Nicoll, Robert H. Hare, C. C. Hopkirk, Lawrence R. Linhart, George Hummer, Theodore Lynn, Ian MacDonald, J. C. Morgan, Ewayne Gulbrandson, Thomas Wheeler, E. Sanborn Brann, M. Lynn Hurst.

Offices have been opened in the Bay Cities Building, Santa Monica, by Dr. Leon Rosove who recently returned to private practice after four years of service with the Navy. Dr. Rosove, a graduate of the University of California, has, since his release from service, been serving as consultant in internal medicine at Veterans Hospital, West Los Angeles. He is also instructor in medicine in the University of Southern California and is a senior attending physician in the Los Angeles County General Hospital.

Dr. A. F. Sonnenberg has leased offices in the Bell Building, El Monte. Dr. Sonnenberg served as a captain in the Medical Corps of the Army Air Corps during the war. Before that he had a residency in Kings County Hospital and also served in Los Angeles County Hospital.

Four thousand doctors, members of the Los Angeles County Medical Association, have accepted responsibility for directing a concentrated attack on the problem of cancer, including a detection, prevention and research program. The announcement was made at the association's annual meeting by Dr. Lyell C. Kinney, San Diego, chairman of the Cancer Commission of the California Medical Association.

The program calls for the unification of four recognized cancer activities in the county, the American Cancer Society, the Cancer Commission, the chronic diseases division of the State Department of Public Health and the Cancer Prevention Society of Los Angeles. A program to build a $2,000,000 cancer memorial hospital has been approved by the association, Dr. Kinney said.

At the same meeting, Dr. E. T. Remmen, Glendale, was elected president of the County Medical Association, William H. Leake, Los Angeles, vice-president, and Carl L. Mulfinger, Los Angeles, secretary-treasurer.

Dr. Elliot A. Rouff has become associated with Dr. Carl R. Howson at 1930 Wilshire Boulevard, Los Angeles. Dr. Rouff, who formerly practiced in San Jose, recently was released from military service.

The Research Study Club of Los Angeles held its sixteenth annual mid-winter post-graduate clinical convention in Ophthalmology and Otolaryngology January 20 to 31, following it immediately with special courses in Applied Anatomy and Cadaver Surgery of the Head and Neck, January 31 through February 4.

SAN FRANCISCO

Dr. L. Henry Garland, San Francisco, was elected president-elect of the Radiological Society of North America at a meeting of the Society in Chicago, December 5.

Dr. Frank Windholz recently returned from Havana, Cuba, where he delivered a paper before the Second Inter-American Congress of Radiology. While at the Congress he also arranged a scientific exhibit dealing with Radiology of the Mastoid.

Dr. J. C. Geiger, Public Health Director, has announced the launching of an educational program for all San Francisco food handlers. First, a Food Advisory Committee will be formed composed of representatives of food establishments, food handlers' unions, and civic and professional groups. Second, a food handlers' school will be set up in which courses in rodent control, bacteriology, food poisoning, communicable diseases, washing and sanitization of dishes and other eating utensils, cleanliness of premises and equipment and personal hygiene will be taught.

One of ten women doctors selected to care for women veterans of World War II is Dr. Hulda Thelander, San Francisco pediatrician and specialist in contagious diseases. Dr. Thelander, who will serve in the San Francisco office of the Veterans' Administration, was in the Navy Medical Corps during the war and held the rank of Lieutenant Commander. She is on the staff of the San Francisco Children's Hospital.

The gold medal of the Radiological Society of North America has been bestowed upon Dr. Robert S. Stone, professor of radiology at the University of California Medical School. The award is presented on unanimous vote of the board of directors of the society to those who have "rendered unusual service to the science of radiology." The award to Dr. Stone is the first made by the society since 1941. Dr. Stone is a pioneer in atomic medicine and, during the war, was in charge of the health activities of the Metallurgical Project, the portion of the atomic bomb project carried on at Chicago, Oak Ridge, and Hanford, Washington.

SAN JOAQUIN

Dr. Edward C. Faulkner has resumed practice with offices in the Don Burton Building, Stockton, after almost four years in the Navy. While in the Navy, Dr. Faulkner participated in the Guadalcanal and Tulagi campaigns and served at the Oak Knoll Hospital and the Mare Island Naval Hospital.

GENERAL NEWS

The second annual Philadelphia POSTGRADUATE SEMINAR IN RADIOLOGY will be held March 30 to April 4. The course is jointly sponsored by the Commission on Education of the American College of Radiology and the Philadelphia Roentgen Ray Society. Radiologists desiring to enroll in the course can obtain application forms by writing to the headquarters office of the College, 20 North Wacker Drive, Chicago 6, Illinois. The course will be limited to 100 registrants, with first preference being given to members of the American College of Radiology who served in World War II. Tuition fee will be $50.

The Annual Meeting of the AMERICAN COLLEGE OF RADIOLOGY is tentatively scheduled for June 8, 1947, Sunday, in Atlantic City. Headquarters will be in Haddon Hall.

Leasing of the Vanport City (Oregon) Hospital by Henry J. Kaiser's Northern PERMANENTE FOUNDATION has been announced by trustees of the Foundation. Lease of the 125-bed hospital, which is fully equipped to provide surgery, obstetric, and general care, is on a year-to-year basis. Dr. Sidney R. Garfield, Mr. Kaiser's chief medical director, announced the appointment of Dr. Wallace Neighbor as resident medical director of the hospital.

Stating that papers submitted for the GLAUCOMA PRIZE of $500 offered in 1944 did not conform to the criteria set up by the ophthalmological committee selected to award the prize, the National Society for the Prevention of Blindness has announced that the prize is AGAIN OFFERED for the most valuable original paper adding to existing knowledge about the diagnosis of early glaucoma or the medical treatment of non-congestive glaucoma. The criteria may be secured by writing to the National Society for the Prevention of Blindness, 1790 Broadway, New York 19, N. Y.

Papers may be presented by any practicing ophthalmologist of the Western Hemisphere and may be written in English, French, German, Italian, Spanish or Portuguese. Those written in any of the last four languages should be accompanied by a summary in English. CLOSING DATE for receipt of papers is December, 1947.

The award will be made by the Society with the guidance of an ophthalmological committee composed of Doctors John N. Evans, chairman; Frank C. Keil, Daniel B. Kirby, John M McLean, R. Townley Paton, Algernon B. Reese, Bernard Samuels, Kaufman Schlivek, Willis S. Knighton, Manuel Uribe Troncoso, David H. Webster.

The 20th Annual Meeting of the NATIONAL CONFERENCE ON MEDICAL SERVICE will be held at the Palmer House, Chicago, February 9. The program will include discussions in the fields of national affairs, economics and medical education. All physicians are invited to attend, there is no registration fee. Dr. Cleon A. Nafe, Indianapolis, is president of the Conference and Creighton Barker, New Haven, is the secretary.

Announcement has been made by Surgeon General Thomas Parran, of the U. S. Public Health Service that applications for FELLOWSHIPS IN POSTGRADUATE PUBLIC HEALTH TRAINING for physicians and engineers for the school year beginning in the fall of 1947 will be received at any time before May 1, 1947.

The fellowships which are made possible by a grant of $228,400 from the National Foundation for Infantile Paralysis, provide an academic year's graduate training of approximately nine months in an accredited school of public health or an acceptable school of sanitary engineering, followed by three months of field training. They are open to men and women, citizens of the United States, under 45 years of age. Physician applicants must have completed at least a year's internship.

Purpose of the fellowships is to aid in the recruitment of trained health officers, directors of special services, and engineers to help fill hundreds of vacancies existing in state and local health departments throughout the country. INTENDED FOR NEWCOMERS TO THE PUBLIC HEALTH FIELD, the fellowships are not open to employees of state and local health departments, for whom federal grand-in-aid funds are already available to the states.

Further details may be had by writing to the Surgeon General, U. S. Public Health Service, 19th and Constitution Avenue, N.W., Washington 25, D. C., Attention Public Health Training.

The second annual mid-winter clinical ASSEMBLY IN OBSTETRICS AND GYNECOLOGY of the Obstetrical and Gynecological Post-Graduate Assembly of Southern California will be held February 10-15 in Los Angeles.

GUEST SPEAKERS are: Dr. Albert H. Aldridge, Chief Surgeon, Woman's Hospital, New York; Dr. Joseph L. Baer, University of Illinois, Chicago, Illinois; Dr. Frieda Fromm-Reichmann, Chestnut Lodge Sanitarium, Rockville, Maryland; Dr. George Van S. Smith, Harvard University Medical School, Brookline, Massachusetts; Dr. Olive Watkins Smith, Searing Research Laboratory, Brookline, Massachusetts; Dr. William F. Windle, University of Washington School of Medicine, Seattle, Washington.

Applications for the course, for which the fee is $75, may be sent to Roy E. Fallas, M.D., 1930 Wilshire Boulevard, Los Angeles 5.

Announcement of an annual essay contest as a memorial to the late Dr. Frank W. Lynch, who was for many years professor of Obstetrics and Gynecology at the University of California Medical School, was made by the Pacific Coast Obstetrical and Gynecological Society following its November meeting in San Francisco. The contest will continue for five years.

Intended to interest chiefly the YOUNGER PHYSICIANS, the contest is open only to those not eligible for membership in the Pacific Coast Society, which requires that its members shall have been in practice for at least ten years and shall hold a certificate from the American Board of Obstetrics and Gynecology.

Contestants may choose as a subject ANY TOPIC IN OBSTETRICS OR GYNECOLOGY—a research project, a case study, or a review of a particular topic. The winner will receive a hundred dollars and an invitation to read his contribution at the annual meeting of the Society.

Details may be obtained from the secretary of the Society, William B. Thompson, M.D., 6253 Hollywood Boulevard, Hollywood 28.

Dr. Herbert M. Katzin of New York has been put in charge of the Laboratory for Ophthalmic Research of the EYE-BANK FOR SIGHT RESTORATION, INC., it was announced by the Eye Bank following the December meeting of its board of directors. At the same meeting, the FELLOWSHIPS WERE GRANTED, one to Dr. Frank Constantine to pursue studies in relation to corneal vascularization, another to Dr. Arnold Forest of the Army Institute of Pathology, Washington, D. C., for training in ophthalmic pathology

with special emphasis on corneal pathology, and the third to Dr. Milo H. Fritz of New York to continue studies in vitreous replacement and vitreous transplants.

Elaborate plans are being made, according to announcement by the American Medical Association, for celebration of its CENTENNIAL IN ATLANTIC CITY, June 9-13, 1947. Only Fellows and invited guests are eligible to attend. Membership in a state society is the primary qualification for Fellowship in the A.M.A. Fellowship dues and subscription to the journal of the A.M.A. are both included in one annual payment of $8, which, it was pointed out, is the cost of the journal to subscribers who are not Fellows. Anyone who is not a Fellow who plans to attend the Atlantic City session, the A.M.A. announcement said, can save himself considerable time and confusion when registering, by writing now to the American Medical Association, 535 North Dearborn Street, Chicago 10, and asking as to his eligibility to become a Fellow.

TWENTY-FIVE CALIFORNIA PHYSICIANS were received into Fellowship in the American College of Surgeons last December 20 during the clinical congress in Cleveland. They are: Frederick S. Balyeat, Los Angeles; Edwin B. Boldrey, San Francisco; William C. Bradbury, Los Angeles; Burt H. Christensen, Oakland; Herbert A. Cilley, San Jose; Alexander B. Crampton, Woodland; Gerald L. Crenshaw, Oakland; Wilfred C. Curphey, Stockton; Clarence C. Engleman, Santa Ana; Robert H. Fagen, Beverly Hills; Lloyd D. Fisher, Berkeley; Samuel Gendel, Los Angeles; McCleery Glazier, Hollywood; Clifford L. Graves, San Diego; Malcolm B. Hadden, Berkeley; Virgil E. Hepp, Palo Alto; Clyde R. Kennedy, San Diego; James L. MacDonald, Los Angeles; Grosvenor T. Root, Oakland; T. Hilton Smith, Salinas; William J. Tennison, Arcadia; George W. Waters, San Jose; Richard R. Webster, San Francisco; Llewellyn E. Wilson, Anaheim.

University of California has completed arrangements for three POST-GRADUATE REFRESHER COURSES for physicians and surgeons to be given in Los Angeles in February through University Extension. The program will be directed toward physicians recently returned from military service and other doctors of medicine who by reason of distance and time find courses of especial value, according to Dr. Paul H. Sheats, associate director of University Extension.

The University courses, both didactic and clinical, are offered in cooperation with the School of Medicine of the University of California and Wadsworth General Hospital of the United States Veterans' Administration. The courses will run consecutively and are full time for five days beginning February 10, 1946.

Lecturers will be drawn from the faculty of the University of California School of Medicine and from among leading physicians and surgeons in the Los Angeles area. In addition, SEVERAL OUTSTANDING AUTHORITIES from the East and Middle West will participate. All doctors interested may request additional information from University of California Extension, with offices in the Administration Building on the Los Angeles campus of the University.

The College of Medical Evangelists announces the organization of a GRADUATE SCHOOL OF MEDICINE, giving courses on the graduate level featuring the basic sciences as related to the major clinical specialties. The second course in the basic studies relating to surgery is now in progress. NINE-MONTH COURSES are also being offered in Internal Medicine and in Obstetrics and Gynecology. These basic science courses are planned primarily for physicians who are working toward certification by their respective American specialty boards.

The western branch of the AMERICAN SOCIETY FOR THE STUDY OF STERILITY announces its first annual conference, February 7 and 8 in Los Angeles. Purpose of the conference is to present and discuss recent advances in the management of the barren marriage, with particular reference to clinical application. FURTHER INFORMATION may be had by writing to A. R. Abarbanel, M.D., Secretary, Program Committee, 141 South Beverly Drive, Beverly Hills.

THE CALIFORNIA SOCIETY OF INTERNAL MEDICINE, which was organized in San Francisco at the time of the meeting of the American Medical Association in July, 1946, already has a membership of 350 doctors.

Aims and objects of this organization are enumerated in the constitution:

"1. To unite the qualified internists of the state in a representative organization for the furtherance of the practice of Internal Medicine.

"2. To study the scientific, economic, social and political aspects of medicine in order to secure and maintain the highest standards of practice in Internal Medicine.

"3. To cooperate with other organizations of like purpose."

Any person who is a citizen of the United States, a resident of the State of California and a Doctor of Medicine licensed to practice in California, and who is either a diplomate of the American Board of Internal Medicine or has limited his or her practice exclusively to Internal Medicine for a period of at least five years (including credit for not more than three years of hospital residence training in Internal Medicine after internship), and who, in the opinion of the Council, has training and experience sufficient to qualify him to practice as a specialist in Internal Medicine, shall be ELIGIBLE TO ELECTION to active membership in this society.

It is desirable that everyone who is eligible to membership submit his application to the Secretary of the Society at its offices. The Membership Committee considers all applications and has the responsibility to submit nominations to membership to the Council who elect the candidate to membership.

The affairs of the society are GOVERNED AND ADMINISTERED BY A COUNCIL consisting of nine active members. The President, Vice-President, Secretary-Treasurer of the society are members of the Council and the remaining six members are elected for a term of one year at the annual meeting of the members. To avoid perpetuation in office, these members can serve consecutive terms of not more than three years. And to insure adequate representation from the various sections of the state, the Constitution provides that not more than three members of the Council can practice medicine in any one county of the state.

THE ANNUAL MEETING of the Society will be held at the time and at the place of the annual meeting of the California Medical Association each year in order to facilitate attendance. The Council holds its annual meeting immediately after the annual meeting of the active membership and shall hold such other meetings throughout the year as seem expedient.

The office of the California Society of Internal Medicine is located at 2180 WASHINGTON STREET, SAN FRANCISCO 9, California. The following doctors are serving on the Council at the present time. William L. Bender, San Francisco County, President; Donald E. Griggs, Los Angeles County, Vice-President; DeWitt K. Burnham, San Francisco County, Secretary-Treasurer; Harold M. Behneman, Riverside County; C. Kelly Canelo, Santa Clara County; H. Gordon MacLean, Alameda County; Frank B. Reardan, Sacramento County; John C. Schlappi, San Diego County; Howard F. West, Los Angeles County.

INFORMATION

Action to Improve Local Public Health Services Advocated

Wilton L. Halverson,* M.D., Dr. P.H.

California local health officers placed themselves on record advocating legislative and regulatory changes in local public health administration at the meeting of the Health Officers' Department of the League of California Cities held recently in San Diego.

Asserting that "a local health district is the only practical solution for organizing local health units," a resolution was passed asking for legislative action to facilitate the formation of local health districts through amendment of the Local Health District Act and the District Investigation Act.

It was pointed out that although California law permits political subdivisions to join forces in providing public health services through the formation of a district, the legal procedure is cumbersome and there have been no new local health districts formed for a number of years.

Another resolution looking forward to the extension and improvement of local health services through legislative action requests that state funds be made available through the State Department of Public Health to subsidize local political subdivisions for public health purposes.

In the preamble to this resolution, the local health officers pointed out that "public health is a state-wide responsibility, administered by local political subdivisions" but that "most local health departments have not been able to meet the required minimum financial standard for minimum public health facilities." Unprecedented problems in raising revenue for the support of local government was stated as the reason for this failure.

The State Department of Public Health was asked to make a state-wide survey and plan for local health units with the advice and assistance of local health officers and community leaders. It was requested that the plan be submitted at a meeting of local health officers to be held in Fresno in February.

The State Director of Public Health and the State Board of Public Health were asked to use their influence to secure by legislation or regulation the state-wide enforcement of a uniform food sanitation ordinance.

The resolution on this subject pointed out that "cities and counties generally have involved, confusing and obsolete food sanitation ordinances" and that since "the principles of food sanitation are the same everywhere it would be possible to agree on a basic ordinance which could be enforced by all local agencies."

* Director, California State Department of Public Health.

Newly Formed Psychiatric Foundation Announces Broad Program for Mental Health

Objectives of The Phychiatric Foundation, recently organized by the American Psychiatric Association and sponsored by the American Neurological Society to carry forward a program designed to promote the nation's mental health, have been announced by the medical men who make up the organizing committee.

The Foundation, when fully organized, is to have as its officers and directors outstanding lay leaders, whose names will be announced later.

The announced objectives are:

1. *Education of Members of the Psychiatric Team*

A primary purpose shall be to fill the great gaps in the ranks of personnel in the psychiatric field. All medical, and particularly psychiatric institutions have traditionally suffered more or less from shortage of employees, and the war left psychiatric efforts practically shorn of workers. Brains and man-power are absolutely essential; without them, no amount of money, time or effort expended can accomplish our objectives. Therefore, our first concern shall be the training of psychiatrists, psychiatric nurses, psychiatric social workers, psychologists, occupational therapists, and other allied workers.

The problem is complicated by lack of educational facilities. In the entire country, only about 70 medical schools maintain departments of psychiatry, and of these, only a few are properly financed; the rest compare most unfavorably with medical school departments of medicine and surgery. If high grade men are to be attracted to the field, departments of psychiatry must be built up with adequate teaching staffs, and financial backing, and must be established on the same basis as other departments.

Other educational opportunities are as meager. The training of psychiatric nurses must be promoted to fill the great need and demand, and psychiatric training for social service workers and clinical psychologists as assistants on the psychiatric team must be developed until there is a well manned medical team adequately prepared and supported so that they will have a fighting chance of winning the battle against mental and emotional disorders.

2. *Psychiatric Research*

Research into the causes and cures of mental illnesses is also essential in the fight against mental illness, and will be promoted wherever support is not otherwise forthcoming. Still in its infancy, psychiatric research has always been a pittance compared to research in other branches of medicine. Financial backing has been conspicuous by its absence, and the efforts which have been put forth have been necessarily spasmodic, and superficial in most instances.

Psychiatric research has only scratched the surface, but shock therapy, electroencephalography, psychological sur-

veys, and other studies have paid back in alleviation of human suffering many times the amount of money invested in their development. There is much to be learned about the "Mystery of the Human Mind." We must go on; we must learn more. We must delve more deeply into physiology, sociology, and physics, identifying man's psychological adjustment with all physiological and sociological changes in life, and thereby find out ways to a better understanding of man and his emotional life.

3. *Medical Legislation*

The study and codifying of legislative procedures as they affect the field of psychiatry will be undertaken. Legislators are too often not in close enough touch with situations as remote from their legal sphere as is the care of mental patients, and they themselves may need to be educated in psychiatric needs. It is important that psychiatrists take the lead in stimulating and aiding and abetting the lawmakers, to the end of bringing about enlightened commitment and other laws appertaining to the field. In some states, legislation is reasonably enlightened, but in others, the laws are archaic, unrealistic, penal and inhumane.

4. *Child Psychiatry*

The evolution and development of child psychiatry is included in the foregoing aims, but is listed as a separate consideration because of a need for particular emphasis in this aspect of psychiatry.

From an institutional and an extra-mural viewpoint, psychiatrists generally agree that work with children is the best possible investment in preventive psychiatry. Certainly as much consideration should be given to the mentally ill adolescent and pre-adolescent as to the epileptic and feebleminded child, both of whom have been elaborately provided for; yet, there is almost a complete lack of institutional psychiatric facilities for children in this country.

Outside of the institutional aspect, child psychiatry will be promoted in schools, through school physicians, teachers and leaders, and in the home. Proper handling of problem children and child delinquents can prevent subsequent more serious emotional disorders or antisocial behavior, and educative work in these spheres will be aimed toward correcting faulty attitudes and habits at an early stage in life.

5. *Education of the Public*

By disseminating authentic information about psychiatric matters, we will try to combat public prejudice and overcome charlatanry, both of which are immense handicaps in obtaining our ends in solving the neuropsychiatric problem. The unreasonable prejudice is wrecking the injustice of preventing a person once mentally ill from ever taking his rightful place in society.

Today, mental illness is regarded with the same apprehension as were cancer, tuberculosis, and infantile paralysis twenty-five years ago. As mental illness at the present time, these diseases were then skeletons in the closet, never mentioned outside the confines of the inner family circle. Today, through intensive public education, they have lost the element of disgrace, and are generally accepted as illnesses which can be prevented, or which must be diagnosed and treated early for the best results. To reduce the incidence and severity of mental disorders, the public must be brought around to that way of thinking in regard to mental illness.

Policy as to Fund Raising

Approaches to the public for funds shall be on a conservative, dignified basis commensurate with the dignity of the cause, avoiding over-dramatization of the need, and over-statements about what can be accomplished. The impractical and the mediocre in psychiatry must be debunked in favor of simple and authentic facts, and charlatanry in every form must be neutralized.

Mental illness has no respect for persons, and all sects, races, creeds, and colors shall be appealed to until the entire public conscience is aroused to the need for public support in the solution of this, the greatest of all public health problems.

Included on the Organizing Committee are: Dr. Leo H. Bartemeier, chairman; Dr. Karl M. Bowman, San Francisco; Dr. Edward A. Strecker, Philadelphia; Dr. Frederick H. Parsons, New York City; Dr. Arthur H. Ruggles, Providence, R. I.; Dr. Winfred Overholser, Washington; Dr. Harry C. Solomon, Boston; Dr. Gregory Zilboorg, New York City; Dr. C. Charles Burlingame, Hartford, Conn.; Dr. M. A. Tarumianz, Farmhurst, Del.; D. Walker Wear, New York City. Austin M. Davies is executive director and headquarters are in Room 924, 9 Rockefeller Plaza, New York City.

Letters to the Editor . . .

ANTICARCINOGENIC SERUM

In 1937 it was shown by Schabad[3] and his collaborators that lipoids extracted from the livers or lungs of patients who had succumbed from cancer are carcinogenic. This suggested that the formation of carcinogenic lipoids may precede the formation of cancer. If so, a successful neutralization or denaturation of these lipoids should have a prophylactic or therapeutic value.

Penn and Jacobsen[2] of the Department of Zoology, University of California at Los Angeles attempted to test this theory by bringing about a lipoid inactivation by immunologic methods. To do this the acetone soluble lipoid fraction from human cancerous livers was coupled with a foreign protein. The resulting conjugate (complete antigen) was used to immunize rabbits. The antiserums thus obtained were used in the treatment of rabbits previously implanted intraocularly with Brown-Pearce tumor.

To prepare the lipoid antigen, human cancerous livers were ground up and repeatedly extracted with acetone, and the acetone-soluble material freed from the solvent by vacuum distillation. One gram of the resulting residue was triturated with 10 cc. horse serum. The emulsion thus obtained was diluted with nine volumes of physiological saline. Young adult rabbits were injected intravenously or intraperitoneally at two-day intervals with this dilute emulsion. One week after the twelfth injection, blood samples were taken from each animal and tested for the presence of lipoid specific precipitins. Three days later the animals giving positive reactions were bled aseptically. The pooled antiserum thus obtained was used for the therapeutic tests.

A total of 195 adult rabbits were inoculated into the anterior chamber of the eye with Brown-Pearce tumor. Seventy-six rabbits were treated 10 to 18 days after inoculation with a combined passive-active immunization technique. The specific antiserum was given intravenously six days per week for three weeks followed by five subcutaneous injections of the lipoid-protein antigenic complex at four-day intervals. Eighty rabbits served as untreated controls. Twenty-six additional controls were treated with normal rabbit serum followed by a control antigen prepared from lipoids extracted from noncancerous human livers.

Confirming the work of earlier investigators[1] Penn found that the malignancy of serially transplanted Brown-Pearce tumors is subject to wide variations. At one end of the scale there are rapidly growing transplants which soon fill the anterior chambers of the eyes and cause numerous metastases in the liver, lungs, ovaries, kidneys and other extra-ocular tissues. At the other end of the scale are slowly growing implants, which rarely cause metastases, and in which spontaneous regression often occurs. Penn therefore studied the effects of his method of antilipoidal immunization on groups of rabbits inoculated with Brown-Pearce tumors of different degrees of malignancy.

But slight therapeutic effects were recorded with slow-growing types of tumor, while marked inhibiting effects were noted with rapidly-growing types. Twenty-four rabbits were implanted intraocularly with uniform fragments of a Brown-Pearce tumor of fulminating malignancy. The animals were distributed equally into three groups: non-injected controls, normal serum injected controls, and dual immunizing tests. Necropsies performed six weeks later showed but two animals (or 25 per cent) of the dual immunized group with active metastases. Of the 16 animals in the two control groups, 13 or 81 per cent showed multiple metastatic nodules.

From this and other experiments, Penn concludes that his method of combined active and passive immunization against the carcinogenic lipoid causes a marked reduction in the malignancy of intraocular implants, and a nearly complete suppression of their tendency to metastasize. Both primary and secondary nodules undergo rapid necrosis and encapsulation.

Clinicians will be interested in this success mainly as confirmation of the suggested theory that carcinogenic lipoids play a dominant role in tumor malignancy.

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"GAMMA-666" vs. DDT

Based on an estimate of the percentage of insects killed in a given length of time by a certain environmental concentration of the toxic agent, the British Insecticide Development Panel[1] concluded that hexachlorocyclohexane or "666" is superior to DDT as an insecticide. Confirmatory evidence based on a careful determination of the relative MLD's of the toxic agents for typical laboratory insects is reported by Savit[2] and his associates of the Toxicity Laboratory, University of Chicago.

Commercial "666" is an inconstant mixture of alpha, beta, gamma and delta isomers, of which the gamma isomer is the most toxic. This isomer is available under the trade names "gammexane" or "gamma 666." Gammexane was used in the pure form (m.p. 112.5°C) by the Chicago investigators. The insects selected were the cockroach (*Periplaneta americana*) and two species of flies (*Musca domestica and Calliphora spp.*). All roaches were unanesthetized, but the flies were partially immobilized with ether during administration of the drug.

To make the tests, the toxic agent was dissolved in acetone and delivered through a 27-gage hypodermic needle, from a 0.25 cc. tuberculin syringe fitted with a micrometer screw-driven piston. For injection purposes in the roach, the needle was made to enter the abdomen beneath the sternite and near its hinge-like point of attachment. For surface applications, the test solution was deposited beneath the wings on the dorsum of the thorax. Controls were given acetone without the toxic agent. The insects were usually tested in groups of from 20 to 50. Measurements of toxicity were made in terms of LD_{50} (mg. per kg. required to kill 50 per cent of the insects).

In the roach the approximate LD_{50} for "gamma 666" when applied to the body surface was 4.6 mg. per kg. while 3.4 mg. per kg. produced the same lethal effect when injected intra-abdominally. For DDT the doses were about twice as much. Both agents highlight the extremely efficient absorption of toxic substances through the outer surfaces of insects. With the newly emerged domestic flies, the LD_{50} on surface application was 0.4 mg. per kg. for gamma 666 as contrasted with 2 mg. per kg. for DDT.

Gamma 666 is thus five times more effective than DDT for young flies. With older adult domestic flies, the LD_{50} doses were 1 mg. and 8.21 mg. respectively, or an eight-fold superiority for gamma 666. An even greater superiority was shown with the second species of flies. With *Calliphore spp.* the surface LD_{50} was 0.6 mg. for gamma 666 and 9.28 mg. for DDT, 16-fold superiority for gamma 666.

Not only does gamma 666 show superiority in its effective lethal dosage, but it has an equally important superiority in its "knockdown rate." Insects show symptoms of poisoning (tremors, ataxia, convulsions, falling, prostration) much sooner after gamma 666 than after equivalent doses of DDT. This is important, since a faster knockdown rate implies less time for ranging and oviposition.

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ECZEMA "KEYSTONE OF SKIN DISEASE" SAY TWO NEW YORK DOCTORS

"Eczema occupies a unique position in the field of dermatology," according to two New York doctors writing in the current issue of *Hygeia*. "It is not only the wastebasket for all unexplained eruptions with characteristic symptoms, but it is also the keystone of skin disease."

The authors—Howard T. Behrman and Oscar L. Levin—class eczema as a common inflammation of the skin. The symptoms are redness, itching, small blisters, and the discharge from the skin of a fluid that stiffens linen, and tends to dry into scales and crusts. However, the authors emphasize that eczema is not communicable.

Heredity plays a role in this disease. According to the authors, "some people are apt to develop eczema because of family tendencies. Blondes and redheads usually have sensitive skins that are irritated by sun, wind and other agents. Other people are susceptible to eczema because of an infection in the teeth, tonsils or sinuses. People with dry or oily skins may be predisposed to skin eruptions. People with dry skins are easily irritated by soap, and, in general, lack sufficient resistance to skin infections. There are people whose sweat glands do not function well. Consequently, they don't perspire enough to remove irritants from the skin or to cool the body."

Another factor which may be responsible for eczema is poor nutrition. The authors state that "lack of vitamins may lower skin resistance to the disease. Lack of vitamin A can cause a type of eczema complicated by pus formation. Lack of vitamin B can cause scaling of the nose and lips. Deficiency of various elements of the vitamin B family can cause a peculiar eruption on the arms and legs."

Various internal parts of the body influence the skin in the development of eczema. Among these the authors list poorly functioning glands, such as the thyroid, upset stomach, liver and kidneys.

"These conditions," write the physicians, "and others, can predispose a man or woman to eczema. In other words, they are indirect causes. There are also causes directly responsible for it. Some people are hypersensitive, or allergic, to drugs or proprietary remedies which may do others good. If the hypersensitive individual takes these drugs, it may easily produce a skin disorder, or predispose him to it.

"If you have a skin eruption, it may be possible that a supposedly harmless laxative, tonic, or blood purifier in your medicine chest is either the cause or part of the cause of your trouble. Perhaps you get a rash in the spring or fall of the year. You probably attribute it either to the weather or astrology. It's more likely to be caused by the insect spray or moth destroyer you use during these seasons."

One of the first steps in the treatment of this condition is to determine the cause and then, if possible, to eliminate it. If the disease is acute, the itching must be relieved and the inflammation reduced as soon as possible. Normally, the patient will be given wet dressings and soothing lotions at this stage.

In chronic, or long-standing eczema, the skin becomes thick and leathery. "When this stage is reached, the cure becomes a long and difficult task," state the authors. "In some cases of obstinate eruptions, x-ray treatment, administered by an expert, may produce a cure when other methods have failed."

BOOK REVIEWS

ALLERGY. By Erich Urbach, M.D., Chief of Allergy Department, Jewish Hospital, Philadelphia; Associate in Dermatology, University of Pennsylvania School of Medicine; Member, Board of Regents, American College of Allergists, and Philip M. Gottlieb, M.D., Associate in Allergy Department, Jewish Hospital, Philadelphia; Instructor in Medicine, University of Pennsylvania School of Medicine; Fellow, American College of Allergists. New Second Edition. Illustrated. Grune & Stratton, New York, 1946. Price $12.00.

The publication of a Revised Edition of Urbach and Gottlieb's Allergy is an event of great importance in the field of Allergic Diseases. Whereas many text books on allergy have been published in the past decade, none presents the subject in such a comprehensive, scholarly and practical manner. The First Edition, which appeared in 1943, has been thoroughly revised. Many new sections have been added and much of the old material brought up-to-date. Considerable research in this field has been done during the past three years, which has added to our understanding of the laboratory and clinical problems in allergic diseases. This is reflected in the 1,300 new Bibliographic references and in the elimination of obsolete material. The new subjects, to mention only a few include a discussion of the RH factor, Allegric Bronchitis, Allergic cough, Psychosomatic Aspects of Allergy, a clear presentation of Drug Allergy and some of the newer antihistamine drugs such as Benadryl. Despite this additional subject matter the number of pages of text has been increased very little. This has been accomplished by resetting the entire book in two column format.

Doctors Urbach and Gottlieb's Allergy is an excellent, practical presentation of all phases of Allergy. It will serve as a useful guide to the Allergist and the Internist devoting much of his time to Allergic diseases. Although the general practitioner may find the scientific background of Allergic phenomena difficult to understand and the newer terminology a little confusing, the clear clinical description of the common allergic manifestations, the vivid photographs and the useful data in the Appendix should help him in the study and treatment of the allergic patient.

* * *

THE CHALLENGE OF POLIO. By Roland H. Berg with an introduction by Basil O'Connor, President, The National Foundation for Infantile Paralysis, Inc. Copyright 1946. 208 pages. The Dial Press, New York. Price $2.50.

This deals with the story of man's fight against polio. Mr. Berg has given an accurate account of what has happened in this fight from 1784 when the disease was first recognized down to the present time. He has dealt fairly with most of the incidents that have made headlines in the past. In words that the layman can understand he has attempted to give each incident its proper stature. Warm springs and warm pool therapy—vaccination and immune serum—Sister Kenny and all the rest are discussed.

Basil O'Connor, President of the National Foundation for Infantile Paralysis, Incorporated, in his introduction states that many persons thought it "impossible to select judiciously and interpret properly what has happened in the laboratories of the nation which are devoted to piercing the mystery of infantile paralysis." He feels that Mr. Berg in writing this book "has brought to his readers a better understanding of the nature and size of problems which confront our scientists in their monumental task."

Having summed up all that has been done, Mr. Berg points out how little is known of this disease and how little at present can be done to control it. It is truly a challenge to those who have elected to fight it.

* * *

HANDBOOK OF DIET THERAPY. By Dorothea F. Turner, Assistant Professor in the Department of Medicine at the University of Chicago. Copyright 1946. University of Chicago Press. Price $2.00.

This compilation of diet therapy is written by Dr. Turner for the American Dietetic Association and may be considered in the nature of a semi-official publication of this group. In a forenote it is suggested that the reader clear his files of overlapping material and follow the procedures in the ensuing pages. The advisability of such wholesale discard of past literature is open to question, but this booklet is certainly the most concise exposition of diet therapy the reviewer has seen. The essential information of dietary study is brought up to 1946. More tables, more material for reference than one would think likely in such a small book are included.

The normal diet is regarded as a general pattern, rather than an exact outline of foods. This pattern is slightly modified for certain conditions of life, such as pregnancy, lactation and childhood. Therapeutic diets are approached logically as various modifications of the normal pattern which are necessary for certain definite reasons and which still assume the basic requisites of the normal diet as the starting point of each of the variations. The adaptation may be in physical consistency (liquid, soft and low-fiber diets), in the variation of some type of food stuff (high and low protein, fat and carbohydrate diets, low purine and low cholesterol diets). The common-sense presentation of the therapeutic diet as a modification which should preserve the requisite food essentials in adequate or, in some instances, in increased amount is preserved through most of the book.

The effort to make the book as concise as possible has caused it to suffer at times from a lack of clarity as the result of compression. The shortened method of calculation should have a longer exposition. The terminology is not always in accord with that considered standard in medical circles; for instance, nicotinic acid and nicotinamide are preferred to niacin and niacinamide (which are called "popular."). There are some references to the glossary which appear unrevealing and unnecessary. The glossary is definitely incomplete. The diet lists can be simplified even further than they are and related more closely to one another. However, these are comparatively minor criticisms of an essentially sound and well written book which can be corrected as future editions appear. It is recommended for reading and reference to the medical practitioner and student as well as to the dietician for whom it is primarily planned.

* * *

CLINICAL METHODS OF NEURO-OPHTHALMOLOGIC EXAMINATION. By Alfred Kestenbaum, M.D., Assistant Clinical Professor of Ophthalmology, New York University; Lecturer in Ophthalmology, Mt. Sinai Hospital; Associate Ophthalmologist, City Hospital; Consultant Ophthalmologist, Psychiatric Department, Bellevue Hospital, and Neurologic Department, Goldwater Memorial Hospital. Copyright 1946. Grune & Stratton, New York. Price $6.75.

The book is based on lectures delivered to ophthalmologists and neurologists and is intended to present the clinical methods of opthalmological examination that may be useful in neurological differential diagnosis.

The following subjects are discussed: anatomy of the

optic pathway; field of vision: pathology of the optic nerve; chiasmal lesions; retrochiasmal lesions of the optic pathway; eye muscle palsey; gaze movement and gaze palsey; nystagmus; disturbance of symmetrical eye movements; pupil accommodation: palpebral fissure and functional disturbances.

The chapter on visual fields does not go into sufficient detail in describing the methods employed in perimetry to permit the reader to learn the technique, but for the non-ophthalmologist it does cover the subject sufficiently to make understandable the various field changes and their significance.

The subject of extra-ocular muscles, always a difficult one, is well done. The various methods employed in arriving at the diagnosis of muscle involvement are described. The chapter is not in the nature of a textbook but does cover the subject sufficiently well to make it valuable to the neurologist.

The discussion of nystagmus is excellent although some of the more recent work is not included. At the end of the chapter is a table listing the various kinds of spontaneous nystagmus and giving their form, associated signs and genesis.

The glossary would seem of particular value, as so many of the terms employed in ophthalmology are foreign to the general language of medicine.

The book is, as the author states, not a textbook on neuro-ophthalmology but is in the nature of a manual on the methods of ophthalmological examinations that are of value in the diagnosis of neurological conditions. This explains the absence of such groups of diseases as the heredo-degenerative affections of the retina, the cerebro-macular diseases and similar conditions. For the detailed study or reference of such subjects as perimetry, extra-ocular muscles, neuro-anatomy and the various neurological conditions the regular textbooks are to be consulted. In addition to its worth to the neurologist, the book will be of value to the resident on ophthalmology in that it will be a good introduction to the methods of examination in neuro-ophthalmology and will act as a guide in reading, especially for the resident who does not have the advantage of an appointment where the didactic subjects are taught by a series of carefully planned lectures.

The typography of the book is good; the diagramatic illustrations are well done. The paper can probably be explained by the paper shortage.

MYASTHENIA GRAVIS. By Dr. Adalberto R. Goni, Member of the Staff of Hospital Alvear, Buenos Aires, Appointed to Diagnostics and Preclinical Instruction; Chief of the Medical Clinic of the Sanitary Service of the Post Office, Telephone and Telegraph. Translated by Georgianna Simmons Gittinger. 1946. The Williams and Wilkins Company, Baltimore.

This little book is essentially a review of the subject of myasthenia gravis. The bibliography of some 300 titles gives an idea of how thoroughly the job has been done. An interesting chapter on the history of the subject is followed by a full clinical discussion, an analysis of views as to the mechanism of myasthenia with special reference to disorders of neuromuscular transmission in relation to acetyl-choline and prostigmine, and finally an outline of therapy. Full directions are given for the use of prostigmine and the implications of thymectomy are gone into. The book concludes with a number of case reports.

* * *

DIFFERENTIAL DIAGNOSIS OF JAUNDICE. By Leon Schiff, Ph.D., M.D., Associate Professor of Medicine, Department of Internal Medicine, University of Cincinnati Medical School; Director, Gastric Laboratory, Cincinnati General Hospital. September 1946. The Year Book Publishers, Inc., 304 South Dearborn Street, Chicago. Price $5.50.

This book discusses clinical and pathologic features of disorders producing icterus, and the laboratory techniques used in diagnosis. There is no discussion of therapy. It is largely a review of literature.

The new information derived from war experience with infectious jaundice and homologous serum hepatitis is well organized and key references given. As the author states, this is still an active subject and any article is soon antedated. The other discussions of parenchymal jaundice add little to the standard textbooks.

There is an excellent chapter on metastatic carcinoma of the liver, illustrated by "pie" charts based on the autopsy experience of the Cincinnati General Hospital.

The section on Clinical and Laboratory Aids is based on personal experience and is the best part of the book. It will clear confusion from the mind of the beginner faced by a multitude of unsatisfactory liver function tests. Dr. Schiff has found punch biopsy of the liver helpful and, so far, safe. The techniuqe of the important liver function tests is given.

This book can be recommended for the general practitioner. It would have been advantageous to have had this material incorporated in a more complete hook on diseases of the liver and hile passages.

MEDICAL JURISPRUDENCE

HOSPITALS: DISTRICTS; CONSTITUTIONALITY OF THE LOCAL HOSPITAL DISTRICT LAW

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The decision recently rendered by the California Supreme Court in *Paso Robles War Memorial Hospital District (a public corporation) vs. Negley, 29 AC 196, November 4, 1946,* may be of interest to the medical profession because of its interpretation of the Local Hospital District Law which was enacted by the California Legislature in 1945.

The hospital district sought to compel the secretary of the district to attest its bonds in the amount of $200,000. The issuance of the bonds was authorized by resolution of the Board of Directors of the district following a special bond election in which more than two-thirds of those voting in the election cast their votes in favor of the issuance of the bonds to acquire a site, construct a hospital, and furnish and equip it. The district was formed, the election was held, and the bonds were authorized pursuant to The Local Hospital District Law. *(Stats. 1945, ch. 932, Health and Safety Code Sections 32000 to 32313.)* The secretary of the hospital district refused to attest the bonds upon the ground that The Local Hospital Law was unconstitutional.

The grounds upon which the statute was claimed to be unconstitutional and the replies thereto by the California Supreme Court are as follows:

(1) *Contention:* That the state had no power to authorize a public corporation to build and operate a hospital as a business. *Answer:* There is no provision of the Constitution of the United States prohibiting the Legislature from authorizing a public corporation to build and operate a hospital as a business. The Court then cited numerous cases in support of this statement and stated that a tax for a hospital owned by a public corporation is a tax for a public purpose.

(2) *Contention:* That the provision in the Local Hospital District Law limiting its use to counties of two hundred thousand population or less invalidated it as special legislation. *Answer:* The Local Hospital Law is not invalid as special legislation because its application is limited to counties of 200,000 or less population. The Court said: "Counties of large population with large cities have many hospitals owned and operated by churches or privately endowed, but the rural counties and counties with small cities are almost entirely without hospitals. This lack of hospitals is a threat to health and safety. To meet such a problem, a classification may be made on the basis of population."

(3) *Contention:* That it could not be determined from the act whether the levy provided therein was a tax or special assessment. *Answer:* The levy imposed by the Local Hospital District Law is an ad valorem levy on all real and personal property within the district. Further, a levy imposed on all the property in a district both real and personal, according to its value and not upon the basis of special benefit, is a tax and not a special assessment.

(4) *Contention:* Approximately 30,000 acres of land owned by the United States are included within the district and this fact invalidates the organization of the district. *Answer:* The inclusion of federally owned lands within the district does not invalidate the district. While federal land itself is not taxable, possessory rights therein and improvements thereon made by an individual for his own use and benefit are subject to taxation. The Court then held that non-taxable lands may properly be included within an assessment district without affecting the validity of the district.

(5) *Contention:* The district did not intend to operate the hospital but intended to lease it to other persons for operation and that a public body had no power to acquire property for the purpose of leasing it to private individuals. *Answer:* A public body may acquire property for the purpose of leasing it to private persons. The Court cited numerous cases in support of this rule.

(6) *Contention:* The principal and interest of the bonds must be paid from the monies raised under the twenty cent tax limit and no additional levy could be made for that purpose. *Answer:* In analyzing the three methods of financing provided by the Local Hospital District Law, the Court overruled this argument and held that a levy in addition to the twenty cent tax limit could be made to pay the principal and interest of the bonds, and that the twenty cent tax limit referred to in Section 32203 of the *California Health and Safety Code* was confined to maintenance, expenses and a fund for capital outlays; that legislative authority to incur a debt carries with it the power to tax to pay such indebtedness unless the law clearly states a contrary intention.

(7) *Contention:* The Paso Robles Hospital District lies in two counties and the provisions of the law for such district in two counties are both unworkable and unconstitutional. *Answer:* The provisions for a local hospital district in two counties are neither unworkable nor unconstitutional. The Court said: "The validity of joint special assessment or taxation districts has been frequently sustained."

(8) *Contention:* A local hospital district could not include an entire county. *Answer:* A local hospital district may include an entire county and the identity of a special district is not merged in that of another political entitity simply because its boundaries are the same as that of the other political entitity.

(9) *Contention:* The final argument was that the law was invalid because it authorized a difference in rates to be charged nonresidents. *Answer:* "The Local Hospital District Law is not invalid because it authorizes a difference in rates to be charged nonresidents."

In conclusion, the California Supreme Court held that the Local Hospital District Law is constitutional and therefore ordered the secretary of the hospital district to attest the bonds.

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Treatment of Bacterial Meningitis with Penicillin, Sulfonamides, and Sera*

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BACTERIAL meningitis before the era of specific therapy was a highly lethal disease regardless of etiology. The mortality due to meningococcic meningitis was variously reported as from 20 to 90 per cent.[6] more generally nearer the latter figure. Pneumococcic, streptococcic and staphyococcic meningitis were almost uniformly fatal.[6] Only rare patients recovered from influenzal meningitis.[1]

Serum and antitoxin therapy probably reduced the mortality of meningococcic disease.[6] although this fact is difficult to demonstrate statistically.

The advent of sulfonamide drugs significantly altered the picture, particularly as regards meningococcic meningitis,[4,5,7,10] but to a lesser extent in the pneumococcic, streptococcic, staphylococcic,[6] and H. influenzae[1] infections of the meninges. More recently, penicillin has been introduced as a therapeutic agent for the treatment of meningitis.

The exact role played by the various sulfonamides, penicillin, and sera in treatment has not yet been defined. Hence the physician is in the fortunate position of having at his command several potent weapons, but he is in the dilemma of having to choose from amongst them the ideal treatment for each individual patient.

The purpose of this paper is to compare the relative efficacy of the several modes of treatment of various kinds of meningitis, and, after studying the effect of certain prognostic factors on the mortality of meningococcic and pneumococcic meningitis, to formulate a plan of therapy for each type of meningeal infection. In addition, several examples of unusual types of meningitis are reported.

A discussion of the diagnosis of meningitis is not warranted here. However, an early etiologic diagnosis is of paramount importance, and every effort must be made to isolate the invading organism, so that treatment may be directed to best advantage.

TREATMENT

Two hundred and sixty-five cases of bacterial meningitis were admitted to the Isolation Division of the San Francisco Hospital during the period January, 1943, to February, 1946 (Table 1). Of these, 14 were tuberculous and received no specific treatment. All other patients received sulfonamide drugs, penicillin, sera, or combinations of these

TABLE 1.—*Incidence and Mortality of Bacterial Meningitis.*

Etiology	Number	Gross Mortality Per Cent	*Corrected Mortality Per Cent
N. meningococcus	182	20.3	11.5
D. pneumoniae	40	67.5	60.6
M. tuberculosis	14	100.0	...
H. influenzae	7	14.1	...
Staphylococcus aureus	4	0.0	...
Staphylococcus albus	4	50.0	33.3
Streptococcus hemolyticus	3	33.3	...
Streptococcus viridans	2	100.0	...
Aerobacter aerogenes	2	50.0	0.0
E. coli	3	0.0	...
N. flava	1	0.0	...
N. catarrhalis	1	100.0	...
Listerella monocytogenes	1	100.0	...
T. pallidum	1	100.0	...
Total	265	...	...

*Mortality corrected for patients surviving less than 24 hours.

*Part of a Symposium on Clinical Use of Antibiotics read before the Section on General Medicine at the Seventy-fifth Annual Session of the California Medical Association, Los Angeles, May 7-10, 1946.

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agents. No attempt was made to treat alternate patients by different methods, but rather the therapeutic regime was changed as each new agent became available and as our experience advanced. During 1943, cerebrospinal fever was epidemic in San Francisco and cases exhibited much more severe degrees of involvement than previously. In the succeeding years, both the incidence and virulence were somewhat above the average level. Patients treated at the San Francisco Hospital come principally from war-crowded sections and lower economic groups. The incidence of alcoholism and pre-existing disease is relatively high.

During this three-year period, sulfadiazine and sulfamerazine have been used to the exclusion of other sulfonamides because of their high degree of effectiveness and comparatively low toxicity. Before the introduction of penicillin, occasional patients manifesting renal irritation due to one or the other newer sulfonamide were shifted to sulfanilamide with uniform success. In all except the mildest cases, the initial dose of sulfonamide was given parenterally in the form of the sodium salt dissolved in physiologic saline solution or one-sixth molar lactate solution. The initial dose was 5 Gm. for adults and approximately 20 mg. per pound of body weight for children. Parenteral medication was continued until the patient was able to take the drug orally. If continued intravenous or subcutaneous medication was necessary, 3 Gm. were administered to adults every eight hours in the instance of sodium sulfadiazine, or every ten to twelve hours in the case of sodium sulfamerazine. The dosage for children was calculated to furnish 60 mg. per pound of body weight per 24 hours.

Blood sulfonamide determinations were done as required and an attempt was made to maintain the drug level in excess of 10 mg. per cent. Oral medication was instituted as soon as feasible, or, in instances of protracted coma, the drug and fluids, as well as a high caloric formula, were given by stomach tube. In adults, 1 to 1.5 Gm. were given every four hours (sulfadiazine) or every six hours (sulfamerazine). Occasional patients received sulfamerazine every eight hours, but it was found that slightly greater individual doses were usually required to produce the desired blood concentration. The oral dose in children was 60 to 90 mg. per pound of body weight, divided into four to six doses daily.

Alkalinization of the urine was accomplished by sufficient sodium bicarbonate by mouth or sodium lactate by vein or hypodermoclysis. Adequate fluids to insure a daily urinary output of at least 1,500 cc. were given to all patients. Blood counts were done every other day, and urine examinations were done daily. On this regime only one instance of severe sulfonamide intoxication was encountered, although microhematuria was not infrequent.

Sulfonamide medication was continued for two weeks in earlier cases of meningococcic meningitis, but this period was later reduced to one week and no instances of recurrence were encountered. In meningococcic meningitis the spinal fluid usually soon became sterile, although the clinical response did not necessarily run parallel. Sulfonamides were continued for at least two weeks in cases of pneumococcic, streptococcic, staphylococcic and influenzal meningitis.

The penicillin dosage varied widely. From 15,000 to 60,000 units were injected intramuscularly every three hours. A few patients received 50,000 units of penicillin in sesame oil and beeswax every eight hours. In addition, 10,000 units of penicillin dissolved in 10 cc. of saline were introduced intrathecally once daily until the spinal fluid became sterile and the sugar content reached normal levels. This rarely required more than three injections for patients who recovered. We feel that intrathecal medication is a necessary procedure, although in some instances, undoubtedly, intramuscular administration might suffice. Penicillin, intramuscularly, was continued for one week in meningococcic infections and for at least two weeks in other forms of coccic meningitis.

USE OF ANTISERUMS

Pneumococcus antiserum, when used, was given initially intravenously in a dose of 100,000 units and this was repeated at 12-hour intervals as required. Meningococcus antiserum and antitoxin were used only in a few cases in 1943 before this procedure was discontinued on the assumption that no extra benefit was derived.[4] Type B Hemophilus influenzae rabbit antiserum was administered intravenously only, according to the plan of Alexander and associates,[1] judging the dose and interval by the condition and age of the patient, the sterility and sugar content of the spinal fluid, and the ability of the patient's serum to produce capsular swelling of his own infecting organism. On clinical grounds we feel that capsular swelling by undiluted serum indicates adequate antibody content.

In addition, sedation was given as required with barbiturates, morphine, or paraldehyde. Plasma[4] and adrenal cortical hormone in large doses were administered in all instances of shock, although their effect was often disappointing. Lumbar punctures were repeated on the following indications: (1) introduction of penicillin, (2) lack of therapeutic response, (3) pressure symptoms and signs, and (4) doubt as to bacteriologic diagnosis.

Meningococcic meningitis responded equally well to sulfadiazine and sulfamerazine (Table 2). The mortality in patients treated with a combination of penicillin and sulfonamide was less than half that of patients treated with sulfonamides alone. The combined therapy group is still too small to draw

TABLE 2.—*Comparative Results in Meningococcic Meningitis with Various Forms of Therapy.*

(Cases Surviving Less Than 24 Hours Excluded)

Treatment	Number	Deaths	Mortality Per Cent
Sulfadiazine	77	9	11.7
Sulfamerazine	62	8	12.9
All Sulfonamides	139	17	12.2
Penicillin	1	0	0.0
Penicillin and Sulfonamides	21	1	4.8

final conclusions, but it is our clinical impression that the difference is probably significant. Only one patient was treated with penicillin alone, so we can offer no comment on the efficacy of this agent without sulfonamides, but Meads and associates[9] feel that penicillin is inferior to sulfadiazine in the treatment of cases of meningococcic meningitis because of slower clinical and bacteriologic response, and the occurrence of relatively penicillin-resistant strains of meningococci. Likewise White and associates[14] recognize the limitations of penicillin in cerebrospinal fever. On the other hand, Rosenberg and Arling[11] report 64 recoveries in 65 patients with meningococcic meningitis treated with penicillin alone.

We had hoped, after a discouraging experience with the sulfonamide treatment of cases of pneumococcic meningitis, that penicillin, used in addition, would reduce the mortality appreciably.[3,13] The fatality rate, however, was not significantly altered by combined penicillin and sulfadiazine therapy (Table 3). Appelbaum and Nelson,[2] in this respect, found that penicillin treatment following unsuccessful sulfonamide therapy, or used in conjunction with sulfonamides was still attended by a high mortality. The results of White and associates[14] also suggest that combined sulfonamide and penicillin, as well as penicillin alone, have not greatly lowered the fatality rate in cases of pneumococcic meningitis. Others[8,12] have obtained equal or better results with penicillin alone, but our experience in this regard is too limited to draw conclusions.

TABLE 3.—*Comparative Results in Pneumococcic Meningitis with Various Forms of Therapy.*

(Cases Surviving Less Than 24 Hours Excluded)

Treatment	Number	Deaths	Mortality Per Cent
Sulfadiazine	4	3	75.0
Sulfamerazine	5	3	60.0
All Sulfonamides	9	6	66.7
Penicillin	2	1	50.0
Penicillin and Sulfonamides	19	11	57.9
Sulfonamides and Serum	7	5	71.4

Results in a small group of patients suffering from H. influenzae meningitis were encouraging. All seven were treated with sulfonamides in high dosage, and all but one, whose organism could not be typed with available sera, received type B rabbit antiserum. Unusual difficulty in maintaining an adequate blood sulfonamide concentration was encountered several times. Six of the seven patients survived, including two under one year of age.

All three patients with beta hemolytic streptococcic meningitis were treated with penicillin. Two, who had mastoidectomies, survived. The fatal case also had generalized streptococcic peritonitis and died in spite of large amounts of penicillin and sulfonamides.

Two patients with streptococcus viridans meningitis were treated with sulfonamides because penicillin was unavailable, and both died.

One patient with staphylococcus albus meningitis treated with sulfadiazine alone expired. Of seven other patients with staphylococcic meningitis receiving penicillin, only one fulminant case of the Waterhouse-Friderichsen type died.

One patient infected with Aerobacter aerogenes died after a fulminant illness of less than 24 hours. One other Aerobacter aerogenes meningitis and two cases of E. coli meningitis were successfully treated with sulfadiazine. In addition, one patient whose meninges were infected with a paracolon bacillus, survived after treatment with penicillin intrathecally and sulfadiazine. The organism was sensitive to 0.24 unit of penicillin per cc. and this concentration was easily exceeded in the spinal fluid by daily administration of 10,000 units.

Meningitis due to N. flava and N. catarrhalis simulated meningococcic meningitis clinically. The former was readily cured by sulfonamides, the latter did not respond.

One unusual meningitis due to Listerella monocytogenes was not helped by sulfadiazine. One patient with syphilitic meningitis did not respond to penicillin.

PROGNOSTIC FACTORS

It became apparent from accumulated experience that meningitis of different etiologic varieties might be divided into mild, moderate, and severe types, and that much less vigorous treatment was necessary to produce good results in the milder categories than in the severe. The time factor also seemed important, although not simply in regard to the duration of illness before therapy was begun.

To this end, the several factors which determine prognosis in meningococcic and pneumococcic meningitis have been analyzed (Table 4). Other types of meningitis might be expected to produce similar data if sufficient cases were available for statistical analysis. Obviously it is impossible to reduce the individual patient to a group of indices, as nothing can replace good clinical judgment. On the other hand, bedside evaluation may be guided successfully by attention to these factors, and hence therapy may be directed more intelligently.

TABLE 4.—*Analysis of Factors Which Determine Prognosis in Meningococcic and Pneumococcic Meningitis*

Sign	Meningococcic Meningitis Per Cent Mortality Present	Absent	Pneumococcic Meningitis Per Cent Mortality Present	Absent
Coma	31.4	5.0	81.8	0.0
Hyperpnea	65.2	13.9	92.9	53.8
Age Over 45	58.1	12.6	83.3	43.8
Reduced Spinal Fluid Sugar	22.9	1.9*	66.7	75.0
Bacteremia	21.9	15.8	83.3	14.3
Spinal Fluid Cell Count Less Than 1,000	5.6*	20.7	100.0	61.8
Pneumonia	..	..	88.0	46.2

* Excluding two fulminant cases with minimal meningitis.

In both meningococcic and pneumococcic meningitis, marked interference with consciousness—either coma, stupor or severe delirium—affected the outcome adversely. One hundred and two patients with meningococcic and 33 with pneumococcic infections exhibited severe alterations of consciousness on hospital entry. In epidemic men-

ingitis the mortality of patients with a clear sensorium was less than one-sixth that of those who had sensorial changes. No patient with pneumococcic meningitis who was completely conscious died, as against 81.8 per cent fatality in the comatose group. Conversely, return of consciousness is the best single favorable prognostic sign in any type of meningitis.

Hyperpnea was likewise an evil omen in both types of infection. This peculiar type of respiration, which occurred in our series in 15 patients with meningococcic and in 14 with pneumococcic infections, often approximated that seen in diabetic acidosis, although neither alteration in body chemistry nor increased intracranial pressure was demonstrated as the cause in any of our patients. This hyperpnea must be distinguished from Cheyne-Stokes and Biot's breathing which are often concomitants of increased intracranial pressure and are not of great prognostic significance by themselves. The mortality associated with this sign was 65.2 per cent in meningococcic and 92.9 per cent in pneumococcic infections.

The age of the patient was important in determining the prognosis. Of 31 patients over 45 years of age with epidemic meningitis, 58.1 per cent died, as compared to an overall mortality of 20.3 per cent. Similarly, of 24 patients over 45 years of age with pneumococcic infections, 83.3 per cent expired. None of four patients under one year of age with meningococcic meningitis died. No patient with pneumococcic meningitis fell into this young age group. On the other hand, influenzal meningitis is most lethal under one year of age.[1]

Pneumonia was present in 25 patients with pneumococcic meningitis and of these, 88 per cent died. Patients with other foci such as otitis, mastoiditis, sinusitis and skull fractures did not have a higher mortality than those in whom no focus was demonstrable. Four of our patients with pneumococcic meningitis—three in the sulfonamide treated group, and one in the combined therapy group—recovered from their meningitis only to succumb later to pneumococcic endocarditis. This high incidence affected our mortality figures adversely, especially in the group treated with sulfonamide alone. Pneumonia was a relatively uncommon but unfavorable complication on entry in meningococcic meningitis.

LABORATORY FINDINGS

Bacteremia was of much more diagnostic than prognostic significance in meningococcic meningitis, and probably should be considered an integral part of the clinical picture of almost every case at some stage of its course. Conversely, pneumococcic bacteremia was associated with a mortality of 83.3 per cent, while the death rate in patients with sterile blood cultures was only 14.3 per cent.

Examination of the spinal fluid also may aid materially in determining the prognosis. The mortality rate for patients with epidemic meningitis whose spinal fluids contained less than 1,000 cells per cmm. was low (5.6 per cent) if obvious fulminant examples of the Waterhouse-Friderichsen syndrome, who die before significant infection of the meninges occur, are excluded. On the other hand, six cases of pneumococcic meningitis with a spinal fluid cell count of less than 1,000 per cmm. had a mortality rate of 100 per cent. High cell content of the spinal fluid was no indication of the severity of the infection.

The prognostic significance of the spinal fluid sugar content has been emphasized by others.[1] Spinal fluid sugar analyses were done by the Folin-Wu method whenever possible, but rapid approximate determinations as described by Alexander and associates[1] were of great aid and convenience. Excluding two fulminant cases of meningococcic disease with minimal meningitis, only 1.9 per cent of patients whose spinal fluid sugar was normal died; likewise a rising spinal fluid sugar level usually presaged recovery.

In pneumococcic meningitis the initial sugar level was of no prognostic significance, but again a rising level usually meant that recovery would follow.

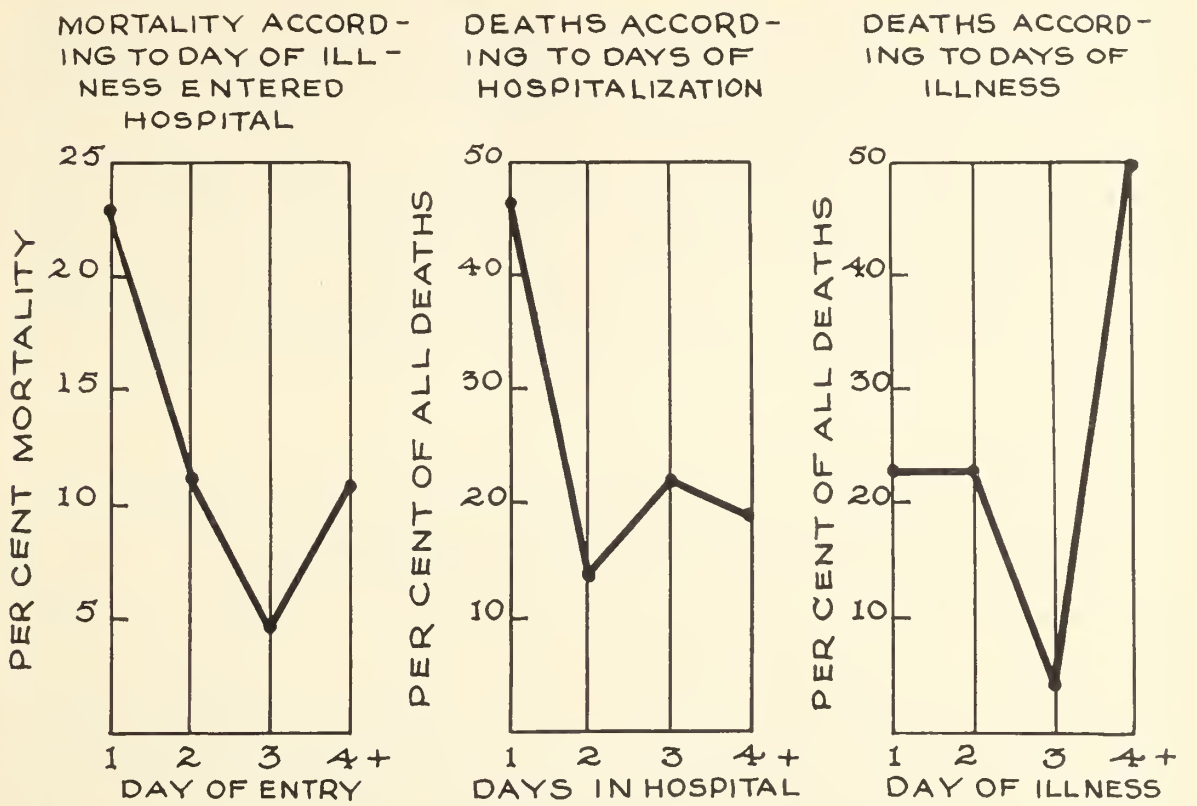
Shock, chronic alcoholism, and coexistent serious diseases affected the outcome adversely. On the other hand, the initial white blood count, the spinal fluid chloride content, the presence of urinary abnormalities including glycosuria, and positive spinal fluid smears or cultures were of little or no value in estimating severity.

In meningococcic meningitis the time factor was important in several ways and could be used as an aid in determining the prognosis and guiding treatment (Table 5). The mortality was highest in those patients who entered the hospital on their first day of illness. These patients, then, may be considered to be those whose infections were due to virulent organisms and were of severe and dramatic onset. The lower mortality of patients entering later in the course of their illness suggests that, if the disease is not severe enough to make early hospital entry necessary, the outlook is good. On the other hand, 50 per cent of deaths occurred on the fourth or later days of illness in those patients from whom a history could be obtained, although almost as high a proportion, 45.6 per cent, died within 48 hours of onset.

On this basis, fatal cases may be divided into two categories: one, in whom the disease is due to an overwhelmingly virulent infection against which therapy is often unavailing and, two, those patients where the infecting organism may be of ordinary virulence, but where irreversible changes, complications, or delayed treatment cause a fatal outcome. The greatest number of deaths on any hospital day occurred on the day of entry—46.9 per cent of all deaths—after which the rate declined rapidly. These patients, of course, died before receiving adequate treatment. If a patient survives the first hospital day, the chances of recovery are excellent. In pneumococcic meningitis, on the other hand, the duration of illness before treatment seemed to have little significant effect on the outcome.

By analyzing all these factors in each individual

TABLE 5.—*Showing Relatively High Mortality Among Patients Hospitalized on First Day of Illness*



patient, the severity of the infection may be estimated and treatment adjusted accordingly.

PLAN OF TREATMENT

Meningococcic Meningitis: Young patients whose disease has been of gradual onset and whose consciousness is intact, especially if the spinal fluid cell count is low and the sugar high, may best be treated with oral sulfadiazine or sulfamerazine.

Other patients, and those who manifest coma, hyperpnea, or shock, or in whom the onset has been severe and abrupt, especially if treatment has been delayed, should be treated by intramuscular and intrathecal penicillin, and, as soon as hydration is satisfactory, by parenteral sulfonamides. Adrenal cortical hormone and plasma may be used to combat shock, although the value of the former is based largely on theoretic grounds. Intrathecal penicillin should be continued daily until the spinal fluid is sterile and the sugar content normal.

Pneumococcic Meningitis: Young patients who are not comatose, and who do not have pneumonia or bacteremia may be treated with either sulfonamides or penicillin alone. Older patients who have one or more of the several unfavorable prognostic signs are probably best treated by combined sulfonamide and penicillin, although the value of such a combination is open to question. Any foci amenable to surgery should be eliminated.

Streptococcic and Staphylococcic Meningitis: Penicillin, administered both intramuscularly and intrathecally, is the treatment of choice. Additional sulfonamides are probably not necessary unless response is delayed. Drainage of foci is important and should be instituted as soon as the infection is controlled.

Hemophilus Influenzae Meningitis: Sulfonamides in large doses for at least two weeks are necessary. Type B rabbit serum should be administered intravenously in infections of this type until the spinal fluid is sterile, the spinal fluid sugar is normal, and the patient's serum will produce capsular swelling of his own infecting organism. Occasional strains may be sensitive to penicillin, so that this should always be investigated.

Coli-Aerogenes Meningitis: Sulfonamide therapy in full dosage is the treatment of choice.

SUMMARY

1. The relative efficacy of sulfonamides, penicillin, and sera, as well as combinations of these agents, is estimated in various forms of meningitis.

2. The effects of various factors on the prognosis of meningitis are analyzed.

3. A plan of treatment for each type of meningitis is promulgated according to these data.

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The Treatment of Pneumococcic Pneumonia With Penicillin and Sulfadiazine*

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With present day methods of treatment, the gross fatality rate of pneumococcic pneumonia in adults is 1.5 per cent.[1] Therapy is relatively simple in the majority of cases. However in about 20 per cent of patients there arise special problems in management and treatment which require careful evaluation if the outcome is to be satisfactory.

The therapeutic regimen herein outlined has been developed as a result of the experience with approximately 3,000 patients with pnuemonia over the past four years. The diagnosis of pneumonia was substantiated in every case by indisputable physical findings and a positive roentgenogram.

In this series about 80 per cent of pneumonia was caused by the pneumococcus. (Table 1.) Sputum examinations in each of these cases showed the predominant organism to be the pneumococcus. Specific typing by the Neufeld method was obtainable in 70 per cent of cases.

Even before penicillin was available for treatment the majority of patients with pneumonia presented simple therapeutic problems: they responded easily to usual doses of sulfadiazine and recovered promptly. Pneumococcic pneumonia classified as mild or moderately severe was even then no problem in treatment and had no appreciable fatality rate. However, in 20 per cent of cases the illness was of sufficient severity to warrant special adjuvant therapy in the form of type specific antipneumococcus serum, and in this group the mortality rate was 26.9 per cent (Table 2).

Table 1.—*Bacterial Etiology of Pneumonia in 3,075 Consecutive Patients (1942-1946).*

Organism	Number	Per Cent
Pneumococcus	2,379	77.3
Staphylococci } Streptococci {	163	5.3
Virus	110	3.6
Undetermined	427	13.8
	3,079	100.0

Table 2.—*Comparative Mortality Rates, According to Severity and Treatment.*

Severity	Therapy	Number Cases	Per Cent Incidence	Per Cent Mortality
Mild and Moderate	Sulfadiazine or Penicillin only	1,269	78.3	0.3
Severe	Penicillin and Sulfadiazine	195	22.4	6.7
	Serum and Sulfadiazine	156	20.9	26.9

With the advent of penicillin, the same majority of patients were no problem in treatment; 78 per cent recovered promptly with simple doses of either sulfadiazine or penicillin, orally or parenterally. However, one out of every five patients was classified as severely or critically ill and received combined sulfadiazine and penicillin therapy (Table 2), with a resultant decrease in mortality from 26.9 to 6.7 per cent.[1]

It is for this latter group of severely ill patients that the skilful evaluation of all factors influencing prognosis, and the meticulous observation of all details in treatment, will be necessary in order to obtain low mortality rates.

Since the advent of chemotherapy, there has been an increasing tendency to discontinue the determination of the bacterial etiology of pneumonia

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by the examination of the sputum and blood culture. This is inadvisable for many reasons.[2]

Probably the simplest and most valuable single procedure is the examination of a stained smear of sputum and the determination of the predominant organism and the approximate number of these organisms present. The prognostic significance of the number of pneumococci per oil immersion field has been demonstrated by Frisch, Price, and Myers,[7] who showed a close relation between the fatality rate and the sputum pneumococci count.

Patients who have only a few pneumococci (under 10 per oil field) have mild pneumonia with the low mortality rate of 0.4 per cent,[2] a low incidence of complications and of bacteremia. This group and those with moderately severe pneumonia (showing 11 to 30 pneumococci per oil field) are easily treated and respond well to simple therapy.

Patients who show many pneumococci in their sputum (31-74 per oil field), and especially those in whom the sputum is loaded with organisms (over 75) are severely ill patients with a very high mortality rate (5 to 15 per cent), and a high incidence of complications. This group requires vigorous therapy with large doses of both penicillin and sulfadiazine.

TABLE 3.—*Comparative Per Cent Mortality by Age and Treatment*[1].

Age	Sulfadiazine with Adjuvant Serum	Sulfadiazine with Adjuvant Penicillin
10-19	0.0	0.0
20-29	2.1	0.0
30-39	2.8	0.5
40-49	5.8	1.9
50-59	14.3	4.1
60-69	12.0	1.2
70 & Over	12.5	10.0
All cases	6.2	1.5

The remarkable effectiveness of combined penicillin and sulfadiazine treatment in all specific types of pneumococcic pneumonia makes routine typing no longer necessary for treatment.[1] The practical importance of typing of pneumococci is further minimized by the fact that the characteristics of each are removed by the uniformity in response to penicillin. However, an occasional patient with an overwhelming pneumonia, with complications such as meningitis, may still require specific antiserum in addition to both penicillin and sulfadiazine.

Probably the most important factor to note as influencing prognosis is age, because of its direct effect on mortality rate and its simplicity in determination. The fact, that regardless of therapy, the mortality from pneumococcic pneumonia is very low in adults under 40, is extremely reassuring in treating patients in this age group (Table 3). With penicillin and sulfadiazine treatment, no adult under the age of 40 with uncomplicated pneumococcic pneumonia should die. Over the age of 40 the fatality rate suddenly rises, and since about 50 per cent of patients with pneumococcic pneumonia are over 40, the factor of age is an extremely important one. The higher incidence of associated diseases in older age groups is an important contributory factor to their high mortality rates.

Frequently a disease occurring concomitantly with pneumonia may become so severe and important a problem that it may become more serious than the pneumonia itself, or may contraindicate certain measures important in the treatment of the pneumonia.

Associated diseases classified as mild usually offer no difficulties of their own in treatment, rarely alter the treatment of the pneumonia, and do not significantly affect the mortality rate (Table 4). Moderately severe concomitant illnesses usually require careful management, often interfere with the routine treatment of pneumonia and result in a higher mortality rate.

Associated diseases classified as severe are always difficult therapeutic problems because two diseases, either one of which alone could kill the patient, are occurring together. Table 4 shows that in this group, combined penicillin and sulfadiazine treatment is very effective, resulting in a decrease in mortality rate from 75 per cent to 18.8 per cent.

In Table 5 are presented in tabular form the practical application of the important prognostic factors in treatment. If none of the severe factors are present (i.e., patient is under 40, sputum count under 30, only a single lobe is involved, etc.) the mortality rate is practically zero with any dosage schedule of either penicillin or sulfadiazine. This is the ideal group to treat with oral penicillin.

Any one of the factors listed in column II (Table 5) tends to increase the mortality rate from 2.5 to 10 per cent, depending upon the factor (average 4 per cent). These patients require full and adequate doses of penicillin preferably, and parenterally administered, or an increased fatality rate will result.

Patients who manifest any single factor listed under column III (Table 5) or multiple factors under column II are usually critically ill—have an

TABLE 4.—*Comparative Mortality by Associated Diseases and Treatment,*

Associated Diseases	Sulfadiazine with Adjuvant Serum: Number of Cases	Sulfadiazine with Adjuvant Serum: Per Cent Mortality	Sulfadiazine with Adjuvant Penicillin: Number of Cases	Sulfadiazine with Adjuvant Penicillin: Per Cent Mortality
Present	142	10.6	193	4.7
Mild	34	5.9	100	1.0
Moderate	43	0.0	77	6.5
Severe	16	75.0	16	18.8
Total (graded)	93	15.1	193	4.7
Not graded	49	2.0	0	0
Not present	606	5.1	679	0.6
Total	748	6.2	872	1.5

average fatality rate of 15 to 20 per cent—and require *combined* penicillin and sulfadiazine therapy for satisfactory outcome.

TABLE 5.—*Indications for Combined Penicillin and Sulfadiazine Therapy.*[2]

Factor	II Severe (More Than Two Factors Below Indicate Combined Therapy)	III Very Severe (Any One Factor Below Is Indication for Combined Therapy)
Age	Over 40	
Sputum count	30 to 75	Over 75 per oil field
Lobes involved	2 or 3	4 or 5
Pulse rate	Over 120	Over 140
Blood Pressure	} Systolic, Under 90 ∫ Diastolic, Under 60	Shock or pulmonary edema
Leukocyte count	6,000 to 10,000	Under 6,000
Albuminuria	+ + + to + + + +	
Associated disease	Moderate	Severe
Complications	Empyema Lung abscess	Meningitis Endocarditis
Blood culture	Positive	
Pneumo. Type	I, II, III, IV, VII	

It must be emphasized that no single factor is infallible or can be used to the exclusion of all others. The best evaluation is obtained by applying all the facts available.

This demonstrates the manner in which the severity of the disease is evaluated, which in turn determines how vigorously the patient is to be treated. Now, to develop how the magnitude of dosage to be administered is determined.

Penicillin is the drug of choice in the treatment of pneumococcic pneumonia because it is an extremely effective antipneumococcic agent, and has practically no toxicity in any dosage. Although sulfadiazine is also a very effective drug in the treatment of pneumococcic pneumonia, and prior to the advent of penicillin was the drug of choice, toxic reactions are frequent, occasionally even fatal, and are often of such nature as to require cessation of chemotherapy even though the infection is not yet adequately controlled. In patients with congestive heart failure, renal insufficiency, or conditions tending to produce edema, acidosis or dehydration there often occurs difficulty in maintaining urinary output and preventing crystalluria and urinary obstruction.

It may be stated categorically that penicillin should be given to every patient with pneumococcic pneumonia. Although there is some variation in sensitivity to penicillin among the different strains of pneumococci, they all respond to levels of penicillin usually easily obtained with ordinary therapeutic doses. Table 6 (from Meads[9]) shows that practically all pneumococci are sensitive *in vitro* to levels of 0.05 unit per cubic centimeter, and certainly levels of 0.1 unit will be sufficient for all the usual pneumococcic infections. However, the therapeutic level for severe infections is probably several times the *in vitro* sensitivity levels.

TABLE 6.—*Penicillin Sensitivity of 88 Strains of Pneumococci (From Meads et al*[9]*).*

Number of Strains	10	50	26	2	0
Oxford units per cc.	.008	.016	.031	.063	.125

The administration of penicillin by continuous intravenous drip produces fairly predictable blood levels of penicillin.[10] Giving 60,000 units daily in this manner maintains blood levels about 0.05 unit per cubic centimeter (Table 7) which is sufficient dosage for the majority of strains of pneumococci (Table 6). By intramuscular injection, about twice the daily dosage is required to obtain the same blood levels, so about 120,000 units per day or 15,000 units every three hours, should be sufficient dosage for the majority of pneumonias, and certainly for the mild or moderately severe pneumonia. For very severe pneumonia, blood concentrations several times the *in vitro* sensitivity level are required, which means that blood levels of 0.1 or 0.2 unit or even higher must be obtained. This will require doses of 250,000 units daily by continuous intravenous drip, or 40,000 to 50,000 units every three hours intramuscularly. The administration of penicillin by continuous drip is reserved now for only the severest of pneumonia, where the maximum blood levels obtainable are desired.

TABLE 7.—*Approximate Plasma Concentration of Penicillin Administered by Continuous Intravenous Drip (From Rantz & Kirby*[10]*).*

Units of Penicillin Per Hour	Total Per Day	(Units Per cc.) Plasma Concentration
2,500	60,000	0.05
5,000	120,000	0.10
10,000	240,000	0.20
20,000	480,000	0.40

Studies have confirmed the reliability of treating mild and moderately severe pneumonia with orally administered penicillin.[3] The clinical results obtained in such instances are in no way different from those observed in patients treated with parenteral penicillin. Adequate absorption of orally administered penicillin is obtained if it is combined with agents which prevent it from being inactivated by gastric acid. Calcium carbonate and sodium citrate appear to be the most effective of the antacid group in aiding penicillin absorption.[11] It has been demonstrated[3] that 100,000 units of calcium penicillin combined with two grams of calcium carbonate administered orally every two hours maintains blood levels between 0.04 and 0.08 unit, which is adequate. Subsequent studies have shown that the frequency of doses can be decreased to every three hours and adequate blood levels are maintained.

In summary, the specific treatment of uncomplicated pneumococcic pneumonia in adults may be briefly outlined as follows:

I. MILD OR MODERATELY SEVERE PNEUMONIA

1. Preferred treatment:

Penicillin tablets: 200,000 units orally stat, then 100,000 units every three hours. Doses at or about meal times to be given preferably one-half hour before meals.

a. Omit doses between midnight and 6:00 a.m.

b. Discontinue after temperature normal three days. (To avoid relapses, penicillin must be continued somewhat longer than is ordinarily considered sufficient for sulfadiazine.[8])

2. Alternate treatment:

Penicillin solution: 15,000 units intramuscularly every three hours.

a. and b., same as with penicillin tablets.

3. Satisfactory, but not recommended:

Sulfadiazine: Grams 5 orally initially, then grams 2 every six hours.[5]

a. Soda: grams 5 q.i.d. (15 to 20 grams daily.[8])

b. Maintain urinary output over 1,500 cubic centimeters daily with pH 7.5 to 8.0. Blood counts every two to three days.

c. Discontinue after temperature normal two days.

II. Severe Pneumonia

(Combined "Low-Dose" Routine.)

1. *Penicillin solution:* 25,000 units intramuscularly every three hours.

2. *Sulfadiazine:* Orally grams 5 initially, then grams 2 every six hours.

a. Precautions against sulfadiazine toxicity, same as for I, 3a and 3b above.

Discontinue sulfadiazine after temperature normal two days. Discontinue penicillin after temperature normal three days. Non-specific therapy (oxygen, etc., as indicated). (Routine admission blood count, blood culture, chest film, and sputum pneumococci count for all cases.)

III. Very Severe (Overwhelming) Pneumonia

(Combined "High-Dose" Routine.)

1. *Penicillin solution:* 40,000 units intramuscularly every three hours, or 10,000 units per hour by continuous intravenous drip.

2. *Sodium sulfadiazine:* Grams 5 in 500 cubic centimeters 1/6 M sodium lactate solution.

3. *Sulfadiazine:* Grams 4 orally every six hours. (High doses of sulfadiazine result in a great decrease in mortality rate without any increase in toxicity.[6])

a. Adequate alkalization ($NaHCO_3$, $KHCO_3$, Na lactate) to maintain urinary pH 7.5.

b. Maintain urinary output over 1,500 cubic centimeters.

c. Other precautions against sulfadiazine toxicity.

Determine penicillin and sulfadiazine susceptibility of organisms. (Other routine laboratory work should be obtained before specific therapy is instituted.) Determine penicillin and sulfadiazine blood levels, and alter dose schedule accordingly. After satisfactory response, continue as for II.

The innumerable details of the treatment of complications and associated diseases are a special problem in themselves.

SUMMARY

Penicillin is the drug of choice in the treatment of pneumococcic pneumonia because of its effectiveness and lack of toxicity. In mild and moderately severe pneumonia, orally administered penicillin is preferred because of its ease of administration and good clinical results. For severe pneumococcic pneumonia, combined parenteral penicillin and sulfadiazine is the most effective therapy.

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Antibiotics in the Treatment of Hemolytic Streptococcus Sore Throat*

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THE treatment of hemolytic streptococcus sore throat with a rash (scarlet fever) and without a rash has been unsatisfactory. Although the several sulfonamides have been widely used in the management of this disease, convincing evidence is not available which demonstrates that their administration is associated with a decrease in the length or severity of the illness, a mitigation of the symptoms, or a more rapid resolution of the lesions in the throat. It is clear that sulfonamide therapy during the acute illness will not prevent the development of rheumatic fever and the other serious late nonsuppurative complications of hemolytic streptococcal disease.

Because the results of sulfonamide therapy were disappointing and because of the importance of hemolytic streptococcal respiratory disease, great interest was aroused by the development of penicillin as an available chemotherapeutic agent and by the demonstration that Group A hemolytic streptococci were extremely susceptible to its action. Several clinical studies[1,2,4] were undertaken for the purpose of determining its efficacy in the treatment of hemolytic streptococcus sore throat. the results of which may be summarized.

The administration of 100,000 to 200,000 units of penicillin per day by the intermittent, intramuscular route is followed by the rapid disappearance of hemolytic streptococci from the throat and nose of infected individuals. Coincidentally there is often a moderate amelioration of symptoms and a reduction in the temperature. It is disappointing to learn that the average severity of disease, and the duration of fever and abnormal physical signs in the throat are not materially reduced in penicillin treated patients when data derived from the study of such cases is compared with those obtained in untreated groups.[3] Furthermore. if penicillin therapy is not continued for at least five days, bacteriological and. in many cases. clinical relapse will follow its withdrawal. The disease will be more prolonged under these latter circumstances than in untreated individuals.

Sulfonamides have been administered for ten or more days after a short course of penicillin in certain studies in the hope that such a clinically useful regime might avoid the hazards of relapse. This expectation was not realized; recrudescence of disease in patients treated in this manner was simply delayed until discontinuance of the sulfonamide.

It is probable that adequate early treatment of hemolytic streptococcal sore throat with penicillin will prevent the development of suppurative complications such as otitis media, peritonsillar abscess and sinusitis. The evidence thus far accumulated indicates that late nonsuppurative complications occur as frequently in penicillin treated cases as in untreated persons.

Penicillin therapy of hemolytic streptococcal sore throat in adults should be reserved for severely ill cases. Its more frequent use in children may be desirable because of the common occurrence of suppurative complications. If this antibiotic is to be used, it should be administered in a dosage of 100,000 to 200,000 units per day by the intermittent intramuscular route; 100,000 units six times per day on an empty stomach by the oral route; or 300,000 units injected once daily intramuscularly if penicillin-oil-beeswax is to be used. In every case, therapy should be continued for a minimum of five days.

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Nitrous Oxide and Oxygen Anesthesia With Curare Relaxation*

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NITROUS oxide anesthesia has been the subject of bitter controversy ever since its first public demonstration by Horace Wells in 1844. Not until Andrews showed that the admixture of oxygen with nitrous oxide increased its safety was it considered sufficiently flexible for use in general surgery. Profound differences of opinion have been very much in evidence among anesthetists, physiologists and pharmacologists regarding the status of nitrous oxide anesthesia. The extremes of viewpoint range from those who believe that nitrous oxide is sufficiently potent to afford adequate anesthesia for all kinds of abdominal operations to those who feel that nitrous oxide is incapable of producing anesthesia independent of oxygen lack. At present the consensus appears to favor the contention that nitrous oxide with oxygen in atmospheric proportions will produce light surgical anesthesia, but only slight muscular relaxation.

The practice of producing greater depth of narcosis by restriction of oxygen in nitrous oxide-oxygen mixtures has been properly discredited but frequently resorted to in order to avoid the addition of ether. Many recently trained anesthetists have had little experience with nitrous oxide anesthesia. The popularity of cyclopropane anesthesia, wherein any degree of narcosis might be maintained without danger of oxygen lack, has been a strong reason for the failure to use nitrous oxide to its fullest extent.

One has only to review briefly the physical and physiological advantages of nitrous oxide and oxygen anesthesia to understand the desirability of a re-investigation of its present status in the light of recent advances in the clinical use of curare.

Nitrous oxide and oxygen provide us with a general anesthetic which is neither inflammable nor explosive and which is relatively non-toxic. Its inability to produce adequate muscular relaxation in the majority of abdominal operations is well recognized. Pre-anesthetic medication with narcotic drugs increases, markedly, the field of usefulness of nitrous oxide and this field may be broadened further by the use of nerve blocks with solutions of local anesthetics.

The introduction of clinically adequate curare into anesthesia offered the possibility of the greatest advance in gas anesthesia since Andrews suggested the combination of oxygen with nitrous oxide.

When Griffith first decided to use curare to secure muscular relaxation during light surgical anesthesia, it was only natural for him to select cyclopropane, of which he is a leading exponent, for the trial. Nevertheless, curare appeared to the authors of this paper to offer a means whereby muscular relaxation or even flaccidity might be obtained during the course of anesthesia with nitrous oxide. Decision to study it was motivated by a desire to extend the physiological advantages of nitrous oxide anesthesia, rather than a wish to veer away from cyclopropane or ether solely because of their inflammable nature. Observations herein are based on experience with the use of nitrous oxide anesthesia with curare relaxation in a wide variety of cases, 160 in number, during the last two years.

Adequate Pain Relief and Reflex Obtundation

Very early in the study the observation was made that the attainment of adequate muscular relaxation might not be the only obstacle to be overcome in this effort to widen the scope of nitrous oxide anesthesia. Even when curare was administered in doses sufficiently large to provide good muscular relaxation, there was evidence of insufficient pain relief during the period of manipulation of the abdominal viscera. The patient will usually respond to such stimulation by contracting, however, feebly, the musculature which the curare has not completely paralyzed, such as the muscles of the face. A grimace is observed and the pulse and blood pressure will usually rise simultaneously. The intravenous administration of morphine will cause the grimace to disappear and the blood pressure and pulse may assume their pre-manipulative level.

The well-known respiratory embarrassment consequent upon the intravenous administration of morphine led us to try Demerol. Clinically, Demerol given intravenously in doses of 50 to 100 mg. will fortify the pain-relieving qualities of nitrous oxide and oxygen with less respiratory depression than that observed following equivalent doses of morphine. Not only will the degree of respiratory depression be less profound, but it will be of much shorter duration, ranging in the neighborhood of one-half hour in the average case. Curare relaxation should, in our opinion, never be considered a substitute for adequate pain relief, even though the patient may, by reason of certain hypnotic drug action, have a complete amnesia for the horrible experience. The administration of curare should be reserved until complete freedom from the effects of painful stimuli can be guaranteed. This having been done, curare may then be administered in amounts sufficient to obtain the required relaxation of the skeletal musculature.

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EFFECTS OF NARCOSIS AND CURARIZATION ON VENTILATION

Regardless of the drugs used for narcosis, anesthesia, or muscular relaxation, the primary concern should be the maintenance of optimum pulmonary ventilation. All anesthetics and narcotics employed to produce general depression of the central nervous system are respiratory depressants. The narcotic drugs such as morphine afford good pain relief with only moderate respiratory depression, in contrast to the hypnotic drugs, including the barbiturates of all classes, which produce marked respiratory depression with only slight pain relieving qualities. The so-called intravenous anesthetics, pentothal and evipal, fall into this category and might better be regarded as "super-hypnotics" than anesthetics.

Nitrous oxide and oxygen, plus intravenous Demerol, plus curarization, afford good anesthesia and excellent muscular relaxation. On the other hand, one must be prepared to deal with the additive depressant action of each of these drugs on respiration.

When the patient has been given enough of the aforementioned drugs to produce good surgical anesthesia, it has been our practice to supplement the patient's feeble respiratory efforts by rhythmically inflating his lungs. This may most efficiently be accomplished by using the "to and fro" carbon dioxide absorption system and exerting gentle intermittent pressure on the breathing bag. The airway should be perfectly free. To insure this, endotracheal intubation is highly desirable. This has been our practice in most intra-abdominal procedures. Under circumstances wherein the patient has been intubated, one may be assured that the compression of the breathing bag will result solely in the inflation of his lungs. In some cases, where the control of ventilation was attempted without endotracheal intubation, there was a marked distention of the stomach and intestines simultaneous with the inflation of the lungs. Indeed, this has been demonstrated in a cinema intended to illustrate the use of curare in anesthesia! In some instances where the anesthetist fortifies the patient's spontaneous respiratory movements to insure adequate ventilation, it will be observed that the respiration has become completely under his control. Adequate ventilation may be guaranteed by the rhythmic, intermittent inflation of the lungs, allowing expiration to proceed passively against only atmospheric pressure. When spontaneous respiratory movements of sufficient amplitude have returned, the mechanical assistance may be discontinued.

Under-ventilation will be noticed much more quickly during nitrous oxide anesthesia than when agents such as cyclopropane or ether, which carry a much higher complement of oxygen, are employed. It has been our practice to combine nitrous oxide with 20 per cent or more of oxygen checked by actual gas analysis. Frequent gas samples were taken for analysis during the course of many operations. The residents are instructed to feel free to make these determinations at any time, in any case. This procedure tends to make all the anesthetists avoid oxygen deprivation.

The respiratory depression consequent upon the administration of curare is different in character from that which is produced by increasing the depth of narcosis with the various general anesthetics. Curare and the potent anesthetics, such as ether, both produce inactivity of thoracic respiratory movements before diaphragmatic paralysis, but here the similarity ceases. When ether anesthesia is pushed to the point where the intercostal musculature becomes paralyzed, the diaphragmatic movements appear to be very little affected. This phenomena offers a marked contrast to the combined paralysis of the intercostal musculature and paresis of the diaphragm observed following the administration of curare. Spontaneous respiratory movements which result in little more than the displacement of the dead space air back and forth are not satisfactory for the purpose of ventilation.

When the administration of curare is superimposed on anesthesia with cyclopropane, combined with very high proportions of oxygen, cyanosis will naturally be more slow in appearing than during nitrous oxide anesthesia when atmospheric proportions of oxygen are employed. Regardless of the degree of oxygenation of the blood, its carbon dioxide tension may be dangerously elevated by depressed respiration. When carbon dioxide is permitted to accumulate in the patient who has received curare, the usual increased blood pressure response may not occur until the curare action has partially or totally worn off. It would appear that the reason for this has to do with the decreased peripheral resistance of the vascular bed consequent upon the general relaxation of the skeletal musculature. The pulse rate increase which follows an elevated carbon dioxide tension in the blood will be observed in the under-ventilated patient who has received curare. When the effect of curare has worn off, under-ventilation will cause the blood pressure to rise. It is important to note at this point that insufficient pain relief in the patient who is adequately ventilated will cause the blood pressure to rise when the curare action has become dissipated. The differentiation is important and is a matter for the physician familiar with respiratory physiology to decide. The treatment for the former is supplemental ventilation: for the latter, supplemental anesthesia. Perhaps by reason of our concern with the problems of ventilation during the course of anesthesia for intrathoracic operations, we have not experienced any untoward effects of over-ventilation, although conceivably this might occur. Here again, emphasis must be placed on the qualifications of the individual conducting the anesthesia and the ventilation rather than the person administering the curare. We believe that the former should never be delegated to anyone except a properly qualified physician anesthetist, while the latter may be performed by anybody who is able to insert a needle into a vein. These matters are stressed because of the all too frequent experience of witnessing the reverse. This, too, was recently demonstrated in a cinema intended to show the technique of controlling ventilation during cyclo-

propane anesthesia in a patient who had been given curare.

PROPER TIME OF CURARE ADMINISTRATION

When curare is employed as a means of obtaining satisfactory muscular relaxation during nitrous oxide anesthesia, it should only be given after adequate pain relief has been assured. After nitrous oxide anesthesia has been induced by the carbon dioxide absorption technique. Demerol, given intravenously and slowly enough so that respiration is not too greatly depressed (usually 50 to 100 mg.), is injected over a period of three to four minutes. Adequate pain relief thus having been achieved, curare in the amount of 80 or 100 mg. may be administered intravenously to insure sufficient relaxation for endotracheal intubation. Subsequent doses of curare may then be given as needed to secure the necessary muscular relaxation. The dose required for the subsequent injections has ranged betwen 40 and 60 mg. of curare. During the course of operations lasting four hours or longer, it will usually be necessary to give additional doses of Demerol. We usually administer 25 to 50 mg. intravenously for this purpose. The largest total amount of curare which we have employed in one case was 260 mg. for a bowel resection lasting six and a half hours. The largest amount of Demerol was 225 mg. during a gastric resection lasting four hours.

REVERSAL OF ANESTHETIC, NARCOTIC AND CURARE EFFECTS

The anesthetist should try to conduct every anesthetic in such a manner as to provide the surgeon with the approximation of ideal operating conditions and still guard against any action which will delay the return of the patient's reflexes upon completion of the operation. The reversal of the effects of nitrous oxide is almost immediate. Recovery from the respiratory depressant action of intravenous Demerol takes approximately one-half hour, while the return of the cough reflex may require an additional hour or an hour and a half. The hypnotic action of Demerol is of short duration and patients may readily be awakened 15 to 20 minutes after the intravenous administration of 50 mg. of the drug.

Curare is effective for approximately one-half hour after its intravenous injection. The length of time during which it is effective clinically appears to be affected very little by the size of the dose when it is administered in the amounts which we have employed for obtaining muscular relaxation during nitrous oxide anesthesia. An initial 100 mg. dose appears to last no longer than an 80 mg. dose, although the result of the former may be muscular flaccidity and of the latter muscular relaxation.

CUMULATIVE EFFECTS OF DEMEROL AND CURARE

There is a certain amount of cumulative effect after the administration of repeated doses of Demerol so that the duration of action of the subsequent doses becomes progressively longer.

Curare, also, shows a cumulative action and when large amounts of the drug are required, as in the case of prolonged operations, a sensation of muscular weakness may persist for some hours after the termination of anesthesia.

SUMMARY

1. A method of rendering nitrous oxide anesthesia more flexible by the use of curare for obtaining muscular relaxation has been outlined based on experience in 160 clinical cases.

2. The importance of first securing adequate pain relief before the administration of curare has been stressed. The intravenous injection of Demerol to fortify the anesthetic properties of nitrous oxide has been suggested.

3. The problems of altered respiratory physiology consequent upon the employment of the nitrous oxide-Demerol-curare combination have been discussed.

4. Satisfactory anesthesia for major abdominal operations may be provided by nitrous oxide and oxygen when the skeletal musculature has been relaxed with curare.

5. The toxicity of nitrous oxide and curare are low and the safety of the method depends on the ability of the anesthetist to apply his physiological knowledge to a clinical procedure.

Guest Speakers, C.M.A. 76th Annual Session
Los Angeles, April 30—May 3, 1947

A. W. Oughterson, M.D., *Medical Director*, American Cancer Society, New York City — "Planning the Attack on Cancer" ... "The Diagnostic Problem in Gastro-Intestinal Cancer"

Hobart A. Reimann, M.D., *Professor of Medicine*, Jefferson Medical College, Philadelphia — "Virus Pulmonary Diseases," "Periodic Diseases" ... "What's New in Infectious Diseases"

James T. Priestley, *Mayo Clinic*, Rochester, Minnesota — "The Surgical and Physiological Aspects of the Treatment of Duodenal Ulcer"

Albert Snell, M.D., *Professor of Medicine*, Mayo Foundation, Rochester, Minnesota — "The Management of Infectious Hepatitis" ... "What's New in Gastroenterology"

Poison Oak— New Antigens and Their Effect On Sensitized Guinea Pigs

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DURING the past five years at the Hooper Foundation for Medical Research many poison oak extracts have been prepared for experimental use, using four different solvents. The solids content of each was determined, as well as the quantities of the so-called active principle (the vesicant oleoresin known as lobinol, expressed in Dermatitant Units). They varied greatly. (Table 1.)

Table 1

200 grams of fresh poison oak leaves and stems were macerated for one month in 1000 cc. each of four solvents. Filtered. Solids weighed. Lobinal content estimated.

Extract No. 1 (Petroleum Ether)	
Extract 1 L	0.1 cc. contained 5,000 Dermatitant Units of Lobinol.
Extract 1 S	100 cc. contained .170 gram of solids.
Extract No. 2 (Ethyl Ether)	
Extract 2 L	0.1 cc. contained 80,000 Dermatitant Units of Lobinol.
Extract 2 S	100 cc. contained .290 gram of solids.
Extract No. 3 (Ethyl Alcohol)	
Extract 3 L	0.1 cc. contained 20,000 Dermatitant Units of Lobinol.
Extract 3 S	100 cc. contained .725 gram of solids.
Extract No. 4 (Acetone)	
Extract 4 L	0.1 cc. contained 40,000 Dermatitant Units of Lobinol.
Extract 4 S	100 cc. contained 1.000 gram of solids.

Two groups of antigens were prepared from these extracts. One group designated as the "LA" group was prepared on the basis of lobinol content. That is, each of the four extracts was adjusted so that 1 cc. contained 10.000 Dermatitant Units of lobinol. (Table 2.) The other group, designated as the "SA" group, was prepared on the basis of solids content. That is, each extract was adjusted so that it contained 0.1 per cent of solids. (Table 3.)

The antigens were prepared by allowing the extracts to evaporate in a 37 degrees centigrade incubator and redissolving the residue in an inert vehicle (e.g., in peanut oil in the case of the petroleum ether and ethyl ether extracts, and in propylene glycol in the case of the ethyl alcohol and acetone extracts).

Sensitized guinea pigs were treated both intramuscularly and by mouth with these eight extracts according to the method described in a previous paper,[6] excepting that a 5.000 Dermatitant Unit stripe test was adopted instead of the 1.000 unit previously. This increased strength in the testing dose was found to be more exacting than the weaker one because it required a higher degree of immunity to influence it, and for that reason was considered a more accurate gauge of measurement.

White guinea pigs weighing approximately 400 grams each were epilated by plucking the hair and then striped daily with a 5.000 Dermatitant Unit poison oak extract until they became sensitized.[7] The reactions were recorded as one, two, three or four plus on the basis of the intensity of the erythema 48 hours after the stripe test was applied, plus the length of time it took for the crust resulting therefrom to separate. The more intense the reaction, the thicker the crust and the longer it took to separate. Only those pigs developing a 4 plus sensitivity were selected for these experiments.

EXPERIMENT I

Sixty-four sensitized pigs were diveded into two groups of 32. Three pigs from each group received 1 cc. of each of the eight extracts intramuscularly

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This paper is No. III of a series. (See references 6 and 7.)

Table 2.—*LA Group: The Four Extracts Adjusted, So That Each Contained 10,000 Dermatitant Units of Lobinol Per 1 cc.*

Medication	By Mouth 1 cc. Daily for 12 Doses — Stripe Test: Before Treatment	By Mouth 1 cc. Daily for 12 Doses — Stripe Test: After Treatment	By Intramuscular Injection 1 cc. Every 3rd Day for 6 Doses — Stripe Test: Before Treatment	By Intramuscular Injection 1 cc. Every 3rd Day for 6 Doses — Stripe Test: After Treatment
Extract No. 1 LA (Petroleum Ether) 1 cc. contained 10,000 Dermatitant Units of Lobinol and .340 mg. of solids.	4+	3+	4+	3+
Extract No. 2 LA (Ethyl Ether) 1 cc. contained 10,000 Dermatitant Units of Lobinol and .036 mg. of solids.	4+	3+	4+	3+
Extract No. 3 LA (Ethyl Alcohol) 1 cc. contained 10,000 Dermatitant Units of Lobinol and .362 mg. of solids.	4+	3+	4+	2+
Extract No. 4 LA (Acetone) 1 cc. contained 10,000 Dermatitant Units of Lobinol and .250 mg. of solids.	4+	3+	4+	2+

TABLE 3.—*SA Group: The Four Extracts Adjusted So That Each Contained .1% of Solids.*

Medication	By Mouth 1 cc. Daily for 12 Doses — Stripe Test		By Intramuscular Injection 1 cc. Every 3rd Day for 6 Doses — Stripe Test	
	Before Treatment	After Treatment	Before Treatment	After Treatment
Extract No. 1 SA (Petroleum Ether) 1 cc. contained .001 gram of solids and 29,500 Dermatitant Units of Lobinol.	4 +	2 +	4 +	3 +
Extract No. 2 SA (Ethyl Ether) 1 cc. contained .001 gram of solids and 276,000 Dermatitant Units of Lobinol.	4 +	1 +	4 +	3 +
Extract No. 3 SA (Ethyl Alcohol) 1 cc. contained .001 gram of solids and 27,600 Dermatitant Units of Lobinol.	4 +	2 +	4 +	1 +
Extract No. 4 SA (Acetone) 1 cc. contained .001 gram of solids and 40,000 Dermatitant Units of Lobinol.	4 +	2 +	4 +	1 +

for six doses at three- to four-day intervals and three received 1 cc. of each of the eight extracts by mouth either daily or every other day for 12 doses. After the treatment was completed they were striped tested again at ten-day intervals for four testings (40 days). All of the pigs developed some protection regardless of which extract was used or by which route it was given. However, there was a marked difference in the degree of protection afforded by one extract as compared to another. This difference seemed to depend on the route in which it was administered on the one hand and on the content of solids or lobinol on the other. The immunity was at its height on the 30th day stripe reading and remained unchanged on the 40th day reading. Eight sensitized pigs in each group (16 in all) were used as controls. They were not given any therapy, but were stripe tested each time the treated pigs were tested. These pigs remained sensitive throughout the experiment.

LA GROUP EXTRACTS

Results with the four LA Group extracts by both methods of administration were:

By Mouth: These four extracts produced a slight but equal and uniform amount of protection. The stripe readings were reduced from a 4 plus to a 3 plus reaction for this group.

By Intramuscular Injection: The same four extracts produced varying degrees of protection. Extracts 3 LA (Ethyl Alcohol) and 4 LA (Acetone) were the most efficient with them, the stripe test readings were reduced from 4 plus to 2 plus reactions. With the other two extracts, 1 LA (Petroleum Ether) and 2 LA (Ethyl Ether), the improvement was from 4 plus to 3 plus.

SA GROUP EXTRACTS

Results with the SA Group extracts were:

By Mouth: These four extracts produced varying degrees of protection. Extract 2 SA (Ethyl Ether) was the most efficient. With it, the stripe test reading was reduced from 4 plus to 1 plus, and with the other three the improvement was from 4 plus to 2 plus.

By Intramuscular Injection: The same four extracts also produced varying degrees of protection. Extract 3 SA (Alcohol) and 4 SA (Acetone) were the most efficient, reducing the stripe test readings from 4 plus to 1 plus reactions, while with the other two extracts, 1 SA (Petroleum Ether) and 2 SA (Ethyl Ether), the improvement was from 4 plus to 3 plus.

From the foregoing experiments it appeared that the plant constituent responsible for producing the most immunity in the guinea pig when the extracts were given by mouth was different from that which caused the greatest improvement when administered by intramuscular injection.

The most protection in the "by mouth" treated groups was observed with those extracts containing the greater amounts of lobinol. For instance, Extract 2 SA (Ethyl Ether) containing 276,000 Dermatitant Units, was by far the most efficient. Extract 1 SA (Petroleum Ether) and 3 SA (Ethyl Alcohol) and 4 SA (Acetone) containing 29,500, 27,600 and 40,000 Dermatitant Units respectively, were next, while the other four, each containing 10,000 units, were the least effective. In the intramuscularly treated groups, however, the extracts containing the greater amounts of polar (water soluble) solids produced the most protection. Extracts 3 SA (Alcohol) and 4 SA (Acetone), each containing .001 gm. of solids, were the most efficient while Extracts 3 LA (Alcohol) and 4 LA (Acetone), containing .362 mg. and .250 mg. of solids respectively, were next and the other four extracts (two made with a non-polar solvent 1 LA and 1 SA, and two with a low-polar solvent 2 LA and 2 SA) were the least effective.

In view of these findings it was decided to run similar animal tests with fractions of one of the extracts, namely, No. 3 Extract (Ethyl Alcohol). This extract contained considerable quantities of the polar solids as well as the oleoresin and waxes. The fractions were obtained in the following manner:

Method A: One thousand cc. of Extract No. 3 (Ethyl Alcohol) was diluted with 500 cc. of water. A precipitate occurred which was removed by fil-

tration. This precipitate was soluble in 95 per cent alcohol and insoluble in 62 per cent alcohol and was labeled Fraction 3A. A portion of this filtrate was dried under vacuum and labeled Fraction 3 BC. Another portion of the filtrate was further diluted with water so that the alcoholic content was reduced to 12 per cent. Another precipitate resulted. This was removed by filtration. The precipitate was soluble in 62 per cent alcohol and insoluble in 12 per cent alcohol. It was labeled Fraction 3B. The filtrate, consisting of the 12 per cent alcohol soluble solids only, was labeled Fraction 3C.

Antigens were made from these four fractions by dissolving the precipitates and/or residues in inert vehicles each containing 0.1 per cent of solids. Fraction 3A was the only one which contained enough lobinol to elicit a response when stripe tested on a sensitized guinea pig's skin.

EXPERIMENT II

Thirty-two sensitized guinea pigs were divided into two groups of 16. Three pigs from each group received 1 cc. of each of the four antigens intramuscularly for six doses at three- to four-day intervals, and three received 1 cc. of each of the four antigens by mouth either daily or every other day for 12 doses. After the treatment was completed the pigs were stripe tested again at ten-day intervals for four testings (40 days). The immunity was at its height on the 30th day stripe reading and remained unchanged on the 40th day reading. Four sensitized pigs in each group (eight in all) were used as controls. They were not given any therapy but were stripe tested each time the treated pigs were tested. These pigs remained sensitive throughout the experiment.

Here, again, all of the pigs developed some protection regardless of which antigen was used or by which route it was administered. (Table 4.)

By Mouth: Antigen 3A (the only one containing measurable quantities of lobinol) was the most efficient. The stripe test was reduced from a 4 plus to a 1 plus reading in all three of the pigs. With the other three antigens (3 BC, 3B and 3C) the reduction was from a 4 plus to a 3 plus.

By Intramuscular Injection: Antigen 3 BC and 3C (the two containing the greater percentage of polar solids) were the most efficient. The stripe test in all of the pigs receiving both of these antigens was reduced from 4 plus to 1 plus. With Antigen 3B the improvement was slightly less, the reduction being from 4 plus to 2 plus, while with Antigen 3A, the improvement was noticeably less —from 4 plus to 3 plus.

These latter experiments confirmed previous observations: namely, that the poison oak extracts containing the larger quantities of lobinol were more efficient as immunity builders when given by mouth, and less efficient when administered by the intramuscular route, while the poison oak extracts containing the larger quantities of polar (water soluble) solids, but very little of the lobinol or waxes, were good immunity builders when administered intramuscularly, and less efficient when given orally.

Besides Method "A", already described, several other methods were employed for separating these various fractions. Some produced more efficient and others less efficient antigens. On the whole, however, the results obtained from their administration to sensitized guinea pigs were similar to those observed and recorded with the fractions obtained by Method "A".

In describing some of the other methods used for this purpose, the author has designated as Antigen No. 95 all of those in which the vesicant (the dermatitis producing fraction) was the outstanding constituent; as Antigen No. 62 all of those which contained most of the plant constituents, excepting the vesicant; and as Antigen No. 12 those containing the water soluble fractions only.

Other methods for preparing Antigen No. 95 were:

Method "B": Direct extraction of the fresh leaves, stems, or roots with fat solvents.

Method "C": Secondary extracting, with a fat solvent, of (1) the residue remaining after volitilizing under vacuum, an extract made with a polar solvent, such as alcohol; or of (2) the solution of the plant extract itself, as hereinafter described. (No. 62C.)

Method "D": Precipitating the vesicant from a solution of plant extracts, with one of the heavy metals, such as lead, aluminum, etc., and then purifying the precipitates.

TABLE 4.—*Extract No. 3 (Ethyl Alcohol) Fractionated Into Four Antigens.*

Medication	By Mouth 1 cc. Daily for 12 Doses — Stripe Test		By Intramuscular Injection 1 cc. Every 3rd Day for 6 Doses — Stripe Test	
	Before Treatment	After Treatment	Before Treatment	After Treatment
Antigen No. 3A Soluble in 95% alcohol. Insoluble in 62% alcohol. 1 cc. contained .001 gram of solids and 60,000 Dermatitant Units of Lobinol.	4+	1+	4+	3+
Antigen No. 3 BC Soluble in 62% alcohol. 1 cc. contained .001 gram of solids.	4+	3+	4+	1+
Antigen No. 3B Soluble in 62% alcohol. Insoluble in 12% alcohol. 1 cc. contained .001 gram of solids.	4+	3+	4+	2+
Antigen No. 3C Soluble in 12% alcohol. 1 cc. contained .001 gram of solids.	4+	3+	4+	1+

Other methods for preparing Antigen No. 62:

Method "B": Extract the fresh leaves and stems with a fat solvent, in order to remove most of the vesicant, dry the leaves and stems and then make a second extraction, this time with a water soluble solvent. This latter extract is evaporated under vacuum and the residue dissolved in propylene glycol.

Method "C": Mix an equal amount of an extract made with a water soluble solvent, such as ethyl alcohol, with a fat solvent, e.g., petroleum ether. Place in a separatory funnel, shake thoroughly and add three volumes of water for each volume of ethyl alcohol present. Shake again. After the layers separate, the upper petroleum ether layer will be found to contain most of the vesicant. The lower layer (alcohol-water), which contains most of the plant constituents excepting the vesicant, is then removed and dried under vacuum and the residue dissolved in propylene glycol.

Method "D": Dry and store the fresh leaves and stems in an incubator at 56°C. for three months. The vesicant evidently undergoes a chemical change under this treatment during this time, and extracts made with this material, using any of the various solvents, produced no reaction when applied to sensitized guinea pig skins. (The same change occurred with leaves and stems stored at room temperatures for much longer periods of time—two years in one instance.)

Other methods for preparing Antigen No. 12:

Method "B": Treat the fresh leaves and stems with boiling water (as in making infusions). Filter several times with talcum in order to remove all traces of the suspended vesicant.

Method "C": Extract the leaves and stems with a 12 per cent water soluble solvent (alcohol, acetone, etc.).

Method "D": Evaporate extracts made with water soluble solvents, under vacuum, and then extract the residue with water or with 12 per cent. alcohol.

The No. 12 antigens made according to Methods "B" and "C" were potent if given subcutaneonsly within the first few hours or days, but they darkened on standing and as this occurred they also lost their potency. Attempts to prevent this change by adding antioxidants were unsuccessful.

Inasmuch as the intramuscular injection of a No. 12 antigen proved to be of value in reducing the sensitivity to poison oak in guinea pigs, the following chemical analyses were made of this fraction (100 cc. contained 150 mg. of solids):

1. *Total Nitrogen: 0.011 mg./cc.* (Mean of six determinations.) Determined by the microkjeldalh method.

Protein Nitrogen: Too little to detect. (Mean of three determinations.) Determined by precipitations with trichloracetic acid, followed by the microkjeldalh analysis of both supernatant solution and precipitate.[4] No nitrogen was found in the precipitate. Nitrogen in the supernatant solution agreed with total nitrogen determination. Protein nitrogen was also tested for by the tungstic acid precipitation method.[5] There was no precipitate.

2. *Sugar Content—Total Sugars: 1.08 mg. glucose/cc.*

Reducing sugars: 0.63 mg. glucose/cc.

Non-reducing sugars: 0.45 mg. glucose/cc.

Determined by oxidation with ferricyanide and ceric sulfate titration.[2] (Chemists' note: "We know of no quantitative test for sugars that would distinguish between sugars and other oxidizable materials.")

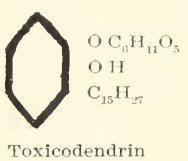
COMMENT

That the chemical analysis of Antigen No. 12 failed to show the presence of protein nitrogen was not surprising in view of the behavior of the allergic response in persons suffering with poison oak dermatitis, and the inability to elicit in such persons the positive corroborating tests usually associated with a true protein sensitivity. On the other hand, the large amounts of sugar which this fraction contains may be due to the presence of water soluble plant glucosides.

A few chemists who have made exhaustive studies with poison ivy extracts have differed in their conclusions regarding the nature of the active principle. Acree and Syme[1] for instance, concluded that the active principle of poison oak was "toxicodendrin," a glucoside of gallic acid, fisetin and rhamnose. McNair[3] on the other hand, working with poison oak, concluded that the active principle was a poisonous substance which he identified as a polyhydric phenol and which he named lobinol. The chemical structure of these two substances are quite similar, the difference being that in the glucoside a sugar radical replaces one of the hydrogens.



Lobinol



Toxicodendrin

In view of this similarity in chemical structure, plus the observations recorded in this article regarding the action of the several fractions of the poison oak extract on sensitized guinea pigs, could it be that the glucoside and not the vesicant is the immunity building fraction? And could it be that the vesicant, which is the potent fraction when taken by mouth, is changed by the hydrochloric acid in the stomach and/or conjugated with a sugar by the liver in order to make it antigenic?

As a precedent for entertaining such a concept, it has been shown that with certain other polysaccharides—for example the pneumococcus—the polysaccharides found in the capsule of that organism play a specific role in antibody production, with the subsequent formation of demonstrable specific precipitins and agglutinins.

Work with Antigen No. 12, however, met with disappointing results in this regard, for when using sera from guinea pigs immunized with this antigen, the author was not able to demonstrate the presence of precipitins in any of several tests made.

The author is convinced that the mechanisms involved in the building of immunity in animal

tissue, through the administration of poison oak antigens, are just as complex as are the chemical constituents of the plant itself. It would appear that what the problem needs is an immunologist and an enzyme chemist working together, in order to solve it satisfactorily.

SUMMARY

1. Poison oak extracts were made with four different solvents. Their solids content and their vesicant content were estimated and compared.

2. Sensitized guinea pigs were treated with these extracts by mouth and by intramuscular injection and their immunological results compared.

3. One of the poison oak extracts was separated into fractions which were then administered separately to sensitized guinea pigs. One fraction was found to be more efficient when given orally. Another was more efficient when given intramuscularly.

4. Several methods are described for obtaining the various fractions. The result of the chemical analysis of one fraction is given and its significance discussed.

The author is indebted to Dr. Troy Daniels, Dean of the College of Pharmacy, and to Dr. Hermann Somer, Chief Chemist at the Hooper Foundation of the University of California, for their interest and helpful suggestions during the course of this study; also to Miss R. E. Nell, who made the chemical analyses of Antigen No. 12.

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Correction

Part of the list of references for the article Typhus Fever in the Second World War, by J. C. Snyder, M.D., which appeared in the January, 1947, number of CALIFORNIA MEDICINE, was inadvertently omitted. The remainder of the list is printed below:

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Thiouracil in Thyroid Diseases*

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SINCE Plummer,[10] in 1923, introduced the use of iodine for preoperative preparation of patients in the treatment of hyperthyroidism, other methods of subtotally destroying the hyperplastic thyroid tissue have been employed less frequently and enthusiastically. Renewed attention has been paid to radiation therapy since the discovery of radioactive isotopes of iodine. Lately, pharmacologic studies on chemotherapeutic agents, the sulfonamides, have attracted the attention of many groups of workers in the field of thyroid disease, in the hope of finding chemical agents for the medical treatment of hyperthyroidism.

Mackenzie, Mackenzie and McCollum,[7] Richter and Clisby,[12] Kennedy[5] and Astwood and his associates[1] showed that sulfonamides and derivatives of thiourea inhibit the formation of thyroid hormone. Since publication of this work, many reports indicate that thiouracil is the most successful agent of the chemical compounds investigated, although propyl derivatives may be equally effective and less toxic.[2] There is now no doubt that thiouracil, in proper dosage, will inhibit formation of thyroid hormone in patients with toxic goiter and cause a remission in the symptoms of this disease as long as the drug is administered.

From the clinical standpoint, certain questions must be answered before thiouracil can be evaluated in the therapy of hyperthyroidism. In the preparation of patients for thyroidectomy, is thiouracil more efficient and safer than iodine? Does it take longer with thiouracil than with iodine to produce a remission? Are there greater dangers from toxic effects of thiouracil? Can this drug alone, without using methods for destruction of the thyroid gland, permanently inhibit the excess production of thyroid hormone? Is thiouracil effective only during the period of its administration?

PHARMACOLOGY OF THIOURACIL

The pharmacology of thiouracil has been best summarized by Williams, Kay and Jandorf.[14] Thiouracil is rapidly absorbed from the gastro-intestinal tract, an appreciable concentration being found in the blood within 30 minutes after administration. With divided daily doses totaling 0.2 to 1.2 grams, concentration in the blood varies from 0.8 to 6.4 mg. per cent. Most of the drug is in the cells in the blood stream. Excretion through the kidneys is rapid. Thiouracil is distributed through all tissues of the body and, according to Williams and his associates, is sometimes found in large quantities in bone marrow, thyroid, ovaries and pituitary while relatively small concentrations are found in striated muscle, testes and liver. These workers noted also that adenomata of the thyroid gland have a higher concentration of thiouracil than does normal thyroid tissue. Cerebrospinal, pericardial and edema fluids contain less thiouracil than whole blood; concentration in pleural and ascitic fluid is about that of blood and concentration in milk is three times that of blood. The drug is destroyed rapidly in the stomach and by contents of the small intestine. It is also destroyed by certain tissues of the body.

The exact mechanism of action of thiouracil on the thyroid is not known. The action is a direct one on this gland with suppression of hormone production. It has been postulated that the enzyme diiodotyrosinase is inhibited so that diiodotyrosine is not converted to thyroxin. Harington and Rivers[4] have shown recently that conversion of diiodotyrosin to thyroxin is almost entirely suppressed in vitro by sodium thiosulphate.

DOSAGE

In preoperative use of thiouracil, the best dosage seems to be between 0.8 and 1.0 gm. given in evenly divided dosages of 0.2 gm. each throughout the waking hours during the first two to three weeks. If the patient is not then ready for surgery, the dose should be decreased to a total of 0.6 gm. per day and at the end of another two weeks to 0.4 gm. per day. None of the patients under my observation has needed over 33 days of preparation for surgery, so a dose as low as 0.4 gm. has been given only experimentally. My experience has been that patients respond much better with 0.8 to 1.0 gm. daily than with small doses. With nonsurgical treatment of hyperthyroidism, the maintenance dose is 0.2 gm. daily to 0.1 gm. every other day.

Two recent reports[8,13] have presented the toxic effects in large series of patients. In one series of 1,091 patients, it was stressed that there is one potentially fatal complication of the drug, agranulocytosis, which was responsible for the five deaths that could be attributed to thiouracil. It should be emphasized that this fatality rate of one half per cent is approximately the same as the surgical mortality in recent years in clinics having a wide experience in thyroid diseases. Moore and his associates[9] have pointed out that 27 of 781 patients, or 3.4 per cent, developed a leukopenia (of 3,000 white blood cells or less) and that 19 of 1,091 patients, or 1.74 per cent, developed agranulocytosis. One fourth of all patients in this series with agranulocytosis died. Chart 1 shows the response of one patient to thiouracil. The first bout of fever, leukopenia and cervical lymphadenopathy ended after the drug was discontinued and penicillin was administered, but a recrudescence occurred coincident with a streptococcal wound infection some two and a half weeks later. Patients who have had

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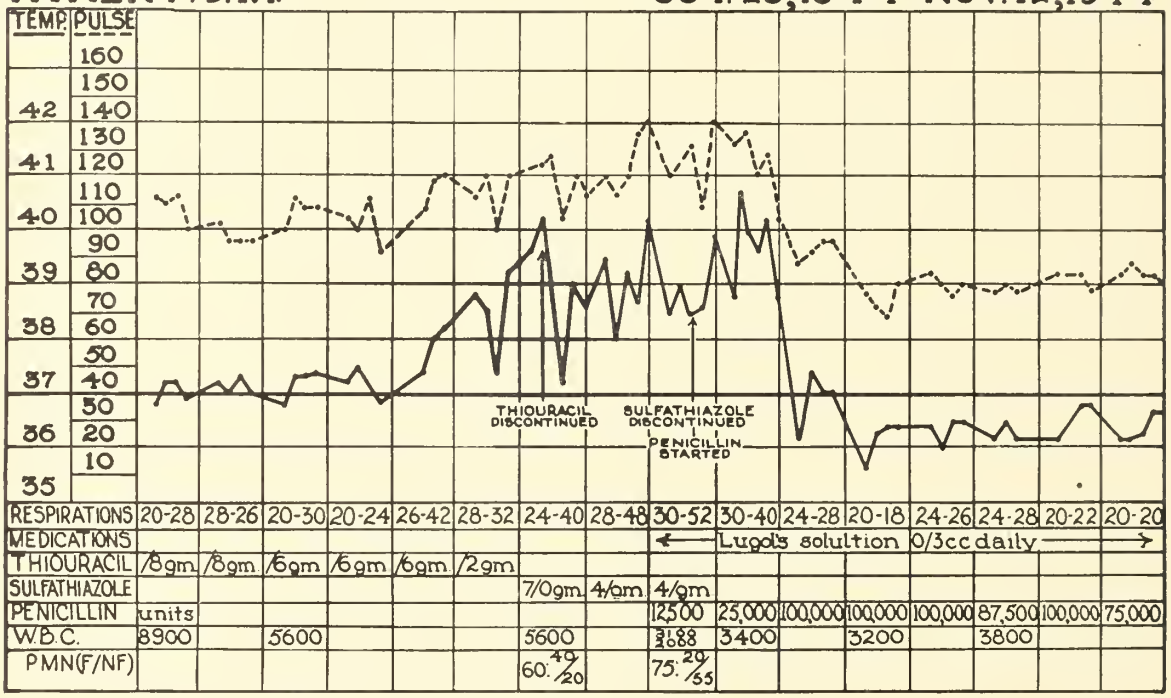
From the Division of Medicine, University of California Medical School and the Thyroid Clinic, University of California Hospital.

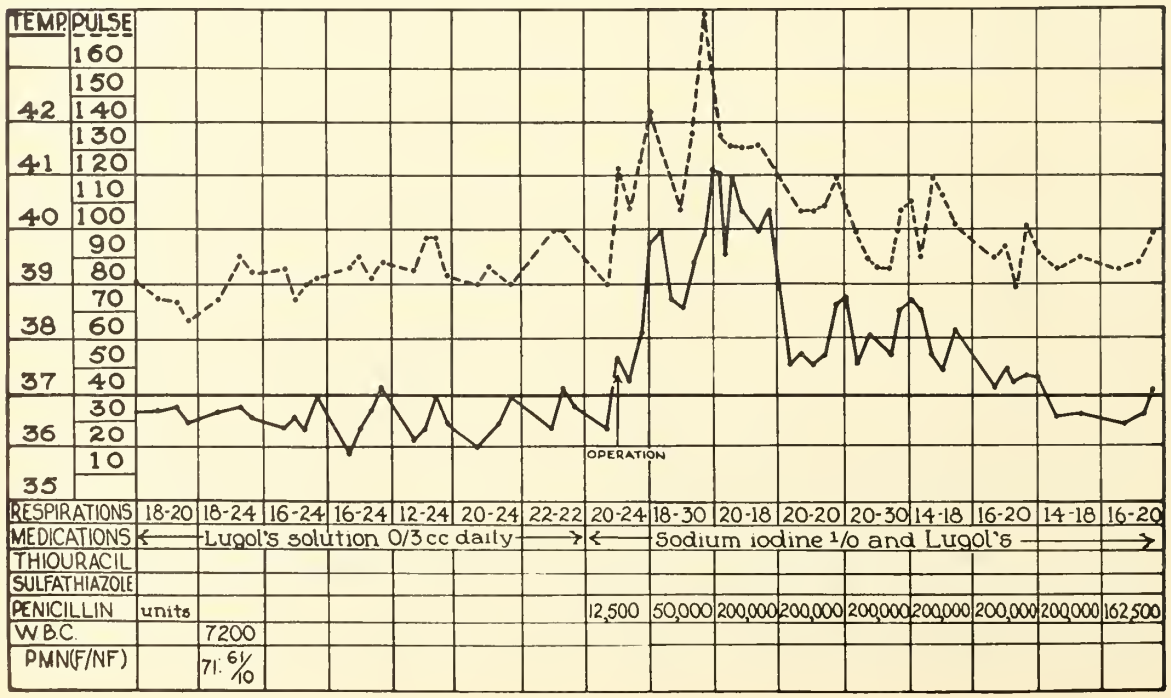
suppression of the function of the bone marrow are candidates for further such difficulties if any infection supervenes, even weeks after the original cause of the suppression has been removed. Leukopenia usually appears between the fourth and eighth week but it has been noted as early as the fifth day and as late as the fifth month during thiouracil therapy. To prevent any serious complications, a white blood cell count should be done repeatedly, preferably at least every third day, and

CHART I

THIOURACIL TOXICITY (FEVER AND LEUKOPENIA)

PATIENT: D.M. OCT. 26, 1944 - NOV. 12, 1944





every day, if a trend toward leukopenia is noted. Intervals of three weeks or longer between counts should not be condoned.

Drug fever (Chart II) occurs in about 5 per cent of patients on thiouracil, and does not always indicate that the drug must be discontinued, although the experience at the University of California has suggested that most such patients no longer can tolerate this drug. About 5 per cent of patients have enlargement of lymph nodes and some of the salivary glands. Nausea and vomiting are encountered occasionally. Edema and myxedema have been reported. Skin rashes similar to those seen with sulfonamides are common. Hepatic damage has been noted.

The experience at the University of California Hospital has been that the postoperative course of really sick thyrotoxic patients has been smoother, with less fever and tachycardia, when these patients have received thiouracil preoperatively. On the other hand, when 3 to 5 grams of thyroid tissue are left *in situ* as is our custom in patients prepared in the usual manner with iodine, a much higher percentage have developed hypothyroidism even though thiouracil is discontinued within one to five days postoperatively. In fact, a third of our patients become hypothyroid, a figure that is about twice that of patients receiving iodine alone.

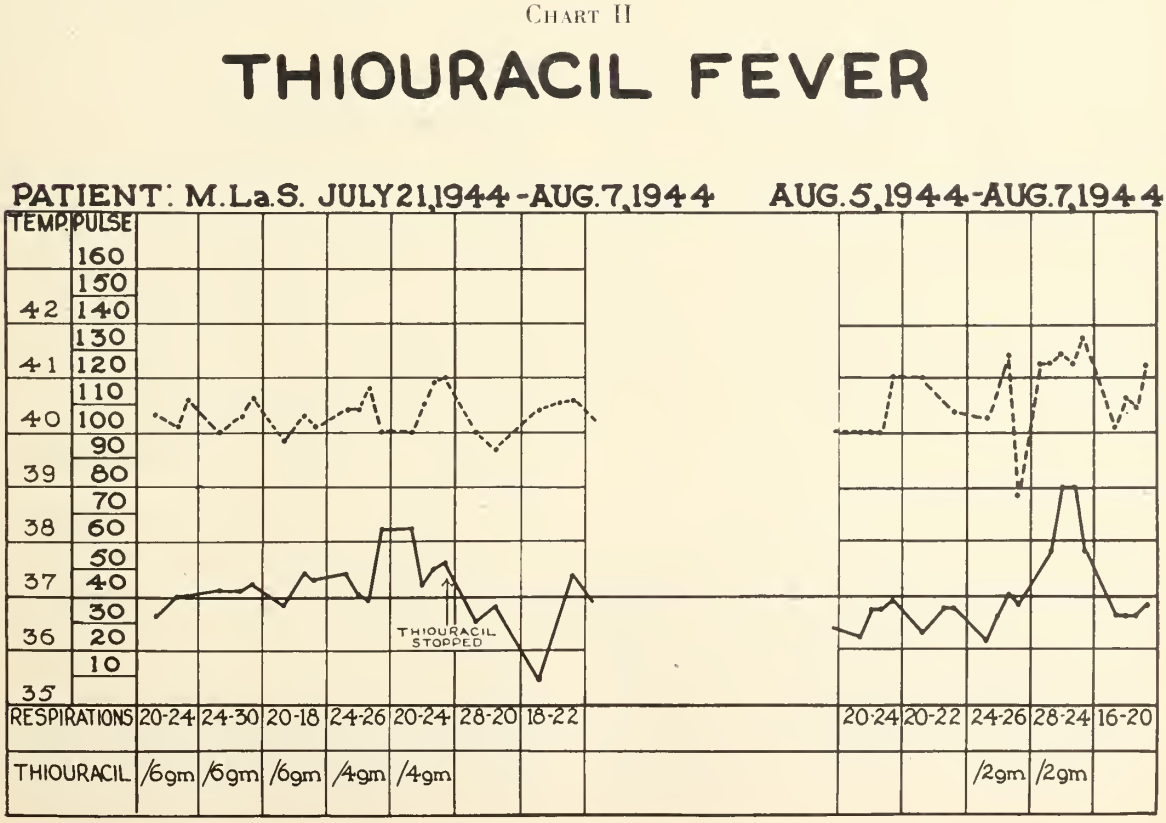
Only one of 41 patients in whom serial measurements of exophthalmos were made pre- and postoperatively showed a significant progression of exophthalmos. However, the patient with severer grades of exophthalmos is still not a candidate for thiouracil in spite of these reassuring figures since, according to the work of others, progression of exophthalmos has occurred during treatment with thiouracil.

PREOPERATIVE PREPARATION OF PATIENTS WITH THIOURACIL

Iodine produces a remission in Graves' disease by causing storage of thyroid hormone within the gland. The subsequent fall in basal metabolic rate and the clinical improvement that follows depend on the destruction and excretion of the excess thyroid hormone in the body; thus the rate of fall of the metabolism is similar to that of a patient following thyroidectomy, or to that of a patient with myxedema when thyroid therapy is stopped. If the administration of iodine—which, histologically, causes involution of the hyperplastic tissue—fails to produce this usual rate of fall in basal metabolism, it indicates, at least theoretically, that it has not been totally effective in damming thyroid hormone in the thyroid gland.

Thiouracil, by inhibition of hormone production, causes a fall in metabolic rate similar to that seen with iodine.[11,12] However, the thyroid gland, instead of involuting, becomes more hyperplastic. The delayed response in patients who have received iodine prior to thiouracil probably is due to the release of previously stored hormone. This means that the body must not only destroy and excrete the excess of thyroid hormone in its tissues but also that released from the thyroid gland with a consequently slower fall in the basal metabolic rate and slower amelioration of the clinical symptoms of hyperthyroidism. It should be mentioned that although half of our patients had been treated with iodine within a month prior to the use of thiour-

CHART II



acil, the average time between the start of therapy and operation under our care was only two days longer than in patients who had received no iodine.

Technical problems in surgical procedure arise because of the increased friability and vascularity of the thyroid gland of patients treated with thiouracil. Tissues are harder to handle and bleeding is more difficult to control. As one surgeon, H. Glenn Bell, phrased it: "Clamping a thiouracil-treated thyroid is like trying to put a clamp in a bowl of cornmeal mush." These technical problems can be avoided by the addition of iodine for one to two weeks prior to subtotal thyroidectomy.

At the University of California Hospital, we have not felt that thiouracil offers any advantages over iodine for the average patient with either a toxic diffuse or toxic nodular goiter. However, very sick patients with coincident ectopic rhythms and cardiac failure or very toxic patients who are in a severe exacerbation of hyperthyroidism and perhaps poorly controlled by iodine are excellent candidates for this drug. Of course, repeated leukocyte counts should be made and toxic effects should be watched for during preoperative preparation. All the other medical measures also should be used just as they are when iodine is given preoperatively. If thiouracil did not present the risk of serious toxic effects, it could be used in all cases rather than in selected groups.

Astwood[13] and many others have used thiouracil in the medical treatment of hyperthyroidism. There is no doubt from reports to date that a remission of symptoms will occur and can be maintained as long as small doses, such as 0.1 to 0.2 gm. daily, are given. The percentage of individuals in whom symptoms of hyperthyroidism recur when thiouracil is discontinued varies widely. Van Winkle and associates[10] report a minimum recurrence of 33.7 per cent, a figure that will almost certainly increase as hyperthyroid patients are observed for longer periods after thiouracil has been discontinued. No reports have stated specifically that thyroid glands return to normal size and consistency, which should also make one skeptical about "cures." The facts just stated, plus the expense of laboratory work and lack of evidence that hyperfunctioning thyroid tissue is permanently suppressed, suggest that thiouracil, as a single therapeutic agent in hyperthyroidism, will not long be used by experienced clinicians. This statement, however, does not apply to newer derivatives now being used experimentally.

King and Rosellini[14] have reported some success in thyroiditis from thiouracil. Thyroiditis which is subacute and not infectious in the sense that bacteria can be cultured from surgical speciments, responds to this drug. In such cases the patients have an enlarged, tender, firm, and spontaneously painful thyroid with local pressure symptoms, often fever, and an elevated sedimentation rate. There may be symptoms of hyperthroidism but usually only general irritability and lack of well-being. King and Rosellini state that thiouracil in doses of 0.2 gm. daily shortened the course of the disease in most of their patients. At the University of California Hospital, five of seven such patients seemed to respond favorably to thiouracil. An eighth patient, who did not respond at all, proved to have multiple hemorrhages in multiple nodules. Our experience indicates that dosage levels of 0.6 to 0.8 gm. per day may be more effective than the original dose of 0.2 gm., and that thiouracil must be continued for two to three weeks or longer.

SUMMARY

Thiouracil is a useful drug in preparation of thyrotoxic patients for surgical intervention when the hyperthyroidism is severe and complicated. It has not been proved better than iodine in moderate hyperthyroidism when used preoperatively. Thiouracil has not consistently produced a permanent remission in hyperthyroidism after the drug has been withdrawn. Nonbacterial (subacute) thyroiditis may respond to thiouracil therapy, although the reasons for this are far from clear. The most dangerous result of the toxic effect of thiouracil is agranulocytosis.

Grateful acknowledgment is made to the Lederle Company for the Deracil (thiouracil) used in our studies.

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Improved Forms of Insulin: Advantages Of Modified Protamine Zinc Insulin*

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IN the treatment of diabetes mellitus, objectives may be listed under six chief headings: (1) to relieve symptoms; (2) to maintain normal nutrition; (3) to prevent acidosis and thus coma and death; (4) to prevent excessive hyperglycemia (and glycosuria); (5) to prevent complications, and (6) to permit the development of the greatest possible carbohydrate tolerance.

The accomplishment of these aims requires knowledge on the part of the physician and cooperation on the part of the patient over a period of many years. The most advantageous use of insulin in the maintenance therapy of each patient, and the proper diet are the two tools most important in accomplishing the objectives in therapy.

The majority of students of the disease are agreed that the more nearly normal the blood glucose values are throughout the day, the greater are the chances to keep the diabetic patient in an optimal state of well-being. Regular insulin caused wide fluctuations in blood glucose levels and required multiple injections. Therefore, various slowly acting types of insulin were tried, and protamine-zinc insulin was emerged as the most widely used form for maintenance therapy. It was hoped that a single injection daily of protamine-zinc insulin would suffice to establish good control in the great majority of cases.

This hope has not been realized. Only the milder cases (usually those requiring 40 units or less daily) can be well regulated with protamine-zinc insulin alone. The present market form of protamine-zinc insulin is entirely a precipitate which is slowly absorbed over a period of 24 hours or more. In mild cases, in which the rise in blood sugar after meals is not great, such an insulin may prevent hyperglycemia during the day as well as during the night. In severe cases, however, it is usually not possible to give enough protamine-zinc insulin to control the blood sugar rise after food intake without causing nocturnal hypogylcemia. Such hypoglycemia does not occur "because protamine-zinc insulin acts strongest at night" (an overworked and inaccurate cliche), but because of the failure to take food at regular intervals during the night. If the patient ate regularly every four hours day and night, protamine-zinc insulin, because of its slow, constant activity, should prove ideal.

Of 350 well-controlled diabetic patients we have treated in the past four years, only 186 (53 per cent) could be regulated with protamine-zinc insulin alone, while 164 (47 per cent) required in addition a separate morning injection of regular insulin. Of the 186 patients well regulated with protamine-zinc insulin alone, 177 (95 per cent) required 40 units daily or less (average 26 units). Those patients requiring separate morning injections of the two insulins were the more severe diabetics, 148 of the 164 needing over 40 units daily, the average total dose being 55 units. It seems evident, therefore, that some different modification of insulin will prove necessary if we hope to control with one daily injection the majority of moderate and severe cases as well as the mild ones.

For practical purposes a compromise or combined form of insulin therapy is often very satisfactory: two separate injections are given each morning, one of protamine-zinc insulin (P.Z.I.) and one of regular (R.I.). Usually the amount of P.Z.I. needed is about three times as large as the dose of R.I. required, and the patients receive P.Z.I. 45 units, R.I. 15 units, or P.Z.I. 60 units and R.I. 20 units, etc. Although this is probably the best plan which is possible with the present market forms of insulin for patients with severe diabetes, it is far from ideal. Two injections daily are necessary, and patients often become confused with the two different types of insulin and two different sized doses.

Efforts to devise an insulin which, with a single injection daily, would establish good regulation in severe as well as mild cases have taken several directions: (1) proteins other than protamine, such as globin and histone, have been combined with insulin; (2) protamine-zinc insulin has been modified by varying its protamine and zinc content, and by changing the pH.

Histone-zinc insulin and globin-zinc insulin have been rather thoroughly studied. Neither of these modifications has given both the rapid effect and the prolonged activity desired.

MODIFIED PROTAMINE-ZINC INSULIN: COMPONENTS AND ACTIVITY

Modified protamine-zinc insulin (M.P.Z.) was at first made in our own laboratory but is now supplied for investigative purposes by the Eli Lilly Research Laboratories.* Approximately 75 per cent of this modified protamine-zinc insulin is in precipitated, slowly absorbed form, while 25 per cent is in solution and is rapidly absorbed. It contains

* Read before the Section on General Medicine at the Seventy-fifth Annual Session of the California Medical Association, Los Angeles, May 7-10, 1946.

From the Department of Internal Medicine, University of Southern California School of Medicine, and the Shelton Clinic, Westwood.

* Under the designation: Special Modified Protamine Zinc Insulin NP 50.

Figure 1

CHARACTERISTICS OF INSULINS STUDIED

Insulin	pH	Source of added protein	Solubility	Composition per 100 unit	
				Added protein	Zinc
				mgm.	mgm.
Modified protamine zinc	7.2	Salmon sperm	Turbid	0.50	0.1
Market protamine zinc	7.2	Salmon sperm	Turbid	1.25	0.2
Clear (acid) protamine zinc	3.4	Salmon sperm	Clear	3.8	0.3
Histone zinc	7.0	Thymus	Turbid	3.2	0.2
Globin zinc	3.7	Beef blood	Clear	3.75	0.3
Regular	3.0	None	Clear	None	0.02
Crystalline	3.0	None	Clear	None	0.02

Note: Modified Protamine Zinc Insulin contains half the added protein and half the zinc present in market P Z I. It has about 75 % slow effect and 25 % rapid effect, the ideal proportion as found when separate daily injections of regular insulin and PZI are used.

approximately half of the protamine and zinc present in market P.Z.I. and is adjusted to pH 7.2. (Figure 1.) The reason for choosing a modification with 75 per cent slow effect and 25 per cent rapid effect was that in our own moderately severe and severe diabetic cases we were using P.Z.I. and regular insulin in separate morning injections and in the great majority of cases the proportion giving the best control was P.Z.I., 3 to regular, 1. The steps leading to the designing of modified protomine-zinc insulin has been reported previously.[4,5] In addition to our studies, observations of others treating diabetic patients led to the belief that an insulin with such proportionate effects would be the most widely useful. Joslin,[3] for example, found that more than 50 per cent of a series of patients required separate morning injections of P.Z.I. and regular insulin, the average doses being 39 units P.Z.I. and 13 units regular (proportion exactly 3:1). Assays upon patients[4] and upon rabbits[7] have demonstrated that approximately 75 per cent of the M.P.Z. insulin action is slow (like P.Z.I.) and 25 per cent is rapid (like regular insulin).

It is important to emphasize here that M.P.Z. insulin cannot be made extemporaneously by mixing P.Z.I. and regular (or crystalline) insulin. Although mixing equal parts of P.Z.I. and regular insulin will result in a preparation containing approximately half the protamine and half the zinc in P.Z.I., the pH will be near 5, at which all the contained insulin is precipitated. Control of the pH by proper buffering is necessary.

Modifications of protamine-zinc insulin containing only a half or a third as much protamine as market protamine-zinc insulin have given the most encouraging results. Two types of insulin with such lower protamine content have been suggested: (1) The biphasic insulin described above, which has been designated "M.P.Z. insulin" by MacBrdye;[4,5] and (2) a monophasic insulin in which all of the hormone is precipitated. The precipitate, however, is saturated with insulin and there is no excess protamine, so that the hormone is more quickly released than from standard P.Z.I., which contains a large excess of unsaturated protamine. This is essentially the product obtained by mixing crystalline insulin with P.Z.I. in the proportion of 2:1, as suggested by Colwell.[1]

GLOBIN-ZINC INSULIN UNSATISFACTORY

In 16 direct comparative case studies[6] it was found that modified protamine-zinc insulin gave better control in 13 patients than globin-zinc insulin, while only three diabetic patients were equally well controlled. In no case did globin-zinc insulin establish better regulation than modified protamine-zinc insulin. Globin-zinc insulin did not prevent after-breakfast hyperglycemia in 12 of the 16 cases

and caused afternoon hypoglycemia in nine of the 16. (Figure 2.) Fasting blood sugars were higher in 13 of the 16 cases when globin-zinc insulin was used. Even when special diets were employed, allowing a smaller breakfast and a larger lunch, the same defects in control were observed with globin-zinc insulin. A mid-afternoon feeding was not given in any of these studies because it was considered illogical and impractical.

SUPERIOR CLINICAL RESULTS WITH M.P.Z. INSULIN

There have been several comparative clinical studies of the suggested new insulin modifications. Peck[8] obtained good results both with the modified protamine-zinc (M.P.Z.) insulin and with a 2:1 crystalline-P.Z.I. mixture, the comparative figures being somewhat better with the former. Del Fierro and Sevringhaus[2] established good control in 15 of 17 cases with M.P.Z. insulin and found it superior to P.Z.I., globin-zinc insulin or mixtures.

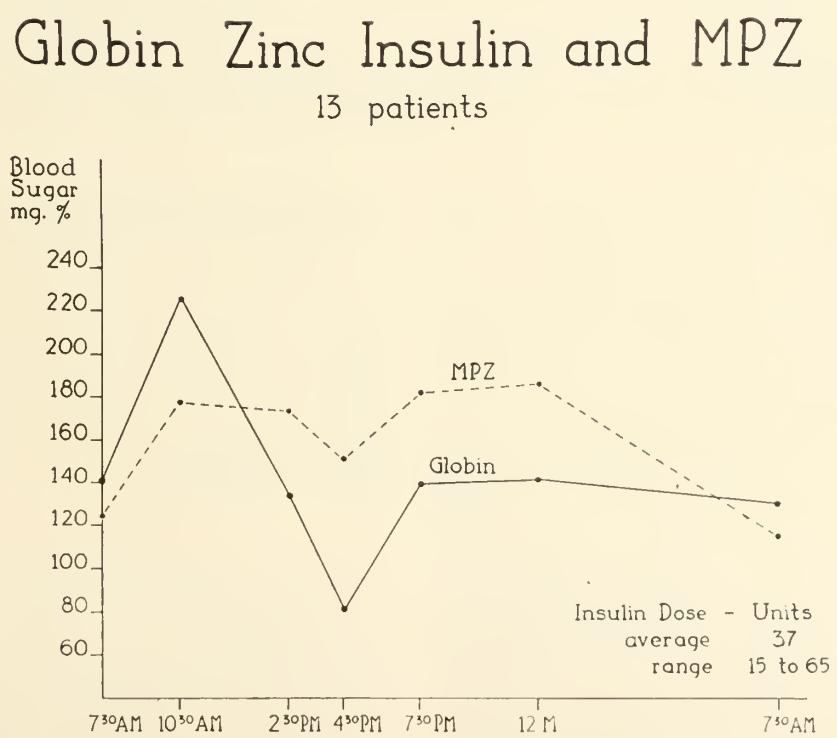
MacBryde and Reiss[6] compared M.P.Z. insulin with the 2:1 mixture in a series of ten severe cases and reported better 24-hour blood sugar curves in every case with the M.P.Z. insulin. Irregular results were obtained with the mixture, with failure to duplicate 24-hour curves. In general the rise in blood sugar after breakfast was poorly controlled with the mixture and there was a tendency to hypoglycemia at midafternoon or midnight. (Figures 3 and 4.) In a total of 110 case studies conducted over a four-year period, good regulation was established in 98 patients (90 per cent) with a single injection of M.P.Z. insulin daily. Severe as well as mild cases were well controlled, 64 per cent of the well-regulated cases requiring over 40 units daily, some as high as 120 units (average 73 units).

At the present time evidence seems to indicate that protamine-zinc insulin, modified by a considerable reduction in its protamine content, will in one of its forms, prove to be the preferable insulin for maintenance therapy. It would seem logical that a biphasic insulin could best control both the hyperglycemia following meals and the constant glycogenolysis demanding a small but steady supply of insulin every hour of the day and night.

CONCLUSIONS

1. An ideal insulin for maintenance therapy of diabetes should:
 a. Be effective for at least 24 hours, so that a single morning injection is sufficient.
 b. Have rapid enough initial activity to control the blood sugar rise after breakfast, plus sufficient prolonged activity to prevent hyperglycemia at night.
 c. Exhibit a pattern of activity not requiring special or abnormal diets, but permitting normal distribution of carbohydrate at the meals, and allowing normal meal hours.

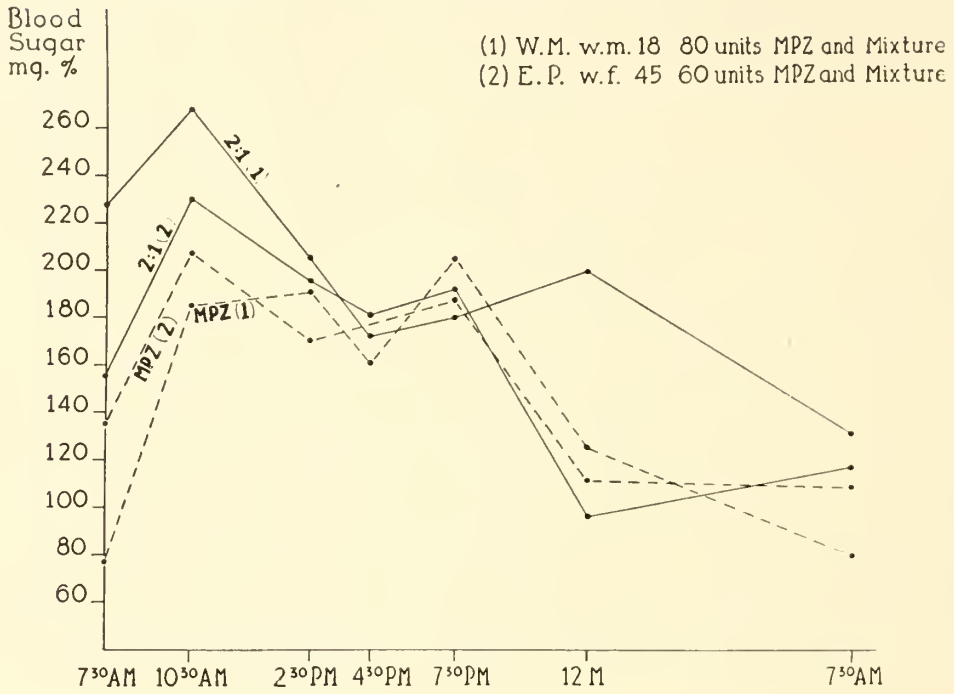
Figure 2



Note: (1) Globin insulin did not prevent after breakfast hyperglycemia.
(2) Globin insulin caused hypoglycemia (below 70 mg %) in 6 of the 13 cases at 4:30 PM.
(3) MPZ prevents after breakfast rise, causes no hypoglycemia.

Figure 3

MPZ Insulin Compared with 2:1 Mixture Studies on 2 Typical Cases



Note: 1. Mixtures gave irregular, unpredictable results. 2. In direct comparisons on 10 patients requiring from 45 to 115 units (average 73 units) daily, MPZ Insulin gave better control in every case than 2:1 Mixture.

d. Not cause hypoglycemia.

e. Reproduce as nearly as possible a normal type of 24-hour blood sugar curve.

f. Be satisfactory for regulating patients requiring the larger doses (over 40 units daily) as well as for patients with smaller insulin requirements.

2. Of all the insulins studied, modified protamine-zinc insulin most nearly fulfills these requirements.

3. The use of multiple forms of insulin should be discouraged. Good therapy of diabetes requires simplicity. Globin-zinc insulin does not satisfy the requirements for an insulin of intermediate activity, and its introduction on the market has unfortunately added to the confusion in this field.

4. The use of variable extemporaneous mixtures, perhaps a necessary step in furthering our knowledge, has also added to the confusion. Since 90 per cent of a series of 110 diabetic patients were well regulated with modified protamine-zinc insulin, there seems to be no necessity for prescription of individual insulin mixtures.

5. The 2:1 crystalline-P.Z.I. mixture did not give a good, predictable, intermediate type of response.

6. Two forms of insulin should be sufficient: (a) modified protamine-zinc insulin such as that used in these studies which might well be substituted on the market for standard protamine-zinc insulin, since it will control a very much larger percentage of patients with uncomplicated diabetes; and (b) regular (or crystalline) insulin for use in diabetic emergencies and whenever supplementary insulin is required.

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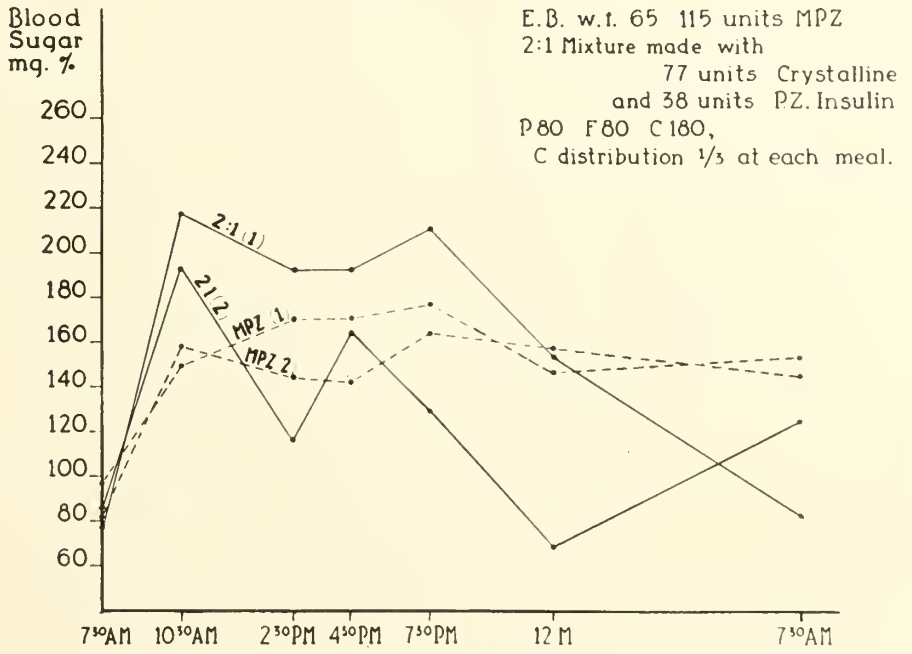
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Figure 4

Mixtures Give Irregular Results
MPZ compared with 2:1 Crystalline-PZI Mixture
2 successive 24 Hour Curves on the same patient



Note close similarity of MPZ curves, great divergence of mixture curves.

Guest Speakers, C.M.A. 76th Annual Session
Los Angeles, April 30—May 3, 1947

A. W. Oughterson, M.D., *Medical Director*, American Cancer Society, New York City	"Planning the Attack on Cancer" "The Diagnostic Problem in Gastro-Intestinal Cancer"
Hobart A. Reimann, M.D., *Professor of Medicine*, Jefferson Medical College, Philadelphia	"Virus Pulmonary Diseases," "Periodic Diseases" "What's New in Infectious Diseases"
James T. Priestley, *Mayo Clinic*, Rochester, Minnesota	"The Surgical and Physiological Aspects of the Treatment of Duodenal Ulcer"
Albert Snell, M.D., *Professor of Medicine*, Mayo Foundation, Rochester, Minnesota	"The Management of Infectious Hepatitis" "What's New in Gastroenterology"

MEDICAL PROGRESS:

Recent Advances in Neurology

CHARLES D. ARING,* M.D., *San Francisco*

SINCE presidential addresses before two national neurological societies in 1946 were concerned with it, we may note at the outset that neurology is not psychiatry, though there are medical forces which would encourage this confusion. While a neurologist may know something about behavior, normal or abnormal, it is quite safe to say that it is not because of his knowledge of the structure and function of the nerves, spinal cord, and brain. What information we have about the physical universe and particularly of the intricate structure, function, and disease of the brain tells us little or nothing of human behavior: it throws no light on why one person is quietly and meekly passive and another boisterously aggressive, nor why either of them may or may not achieve, and what motivates the criminal and the saint, nor will it do so for centuries to come. In 1870 Doctor Oliver Wendell Holmes[14] said on this subject, "We do not find Hamlet and Faust, right and wrong, the valor of men and the purity of women by . . . examining fibres in microscopes." A neurologist is not necessarily the sort of expert in human affairs that many expect him to be and it is well to have done with this notion, particularly before a discussion concerning progress in neurology is attempted. The neurologist's information other than intuitive about mental functioning, as one should expect, is directly related to his training therein, in other words to his study of psychiatry.

A neurologist is one who is familiar with the function and malfunction of nerves, spinal cord, and brain, which to be sure, like malfunction of the heart, lungs, or liver may result in mental symptoms. Besides, neurology has come to include certain disorders of the muscles and endocrine glands. Within the last 50 years the neurologist has been joined by his colleague, the surgeon, who is technically expert in manipulating these tissues. They alleviate certain diseases between them, for example, infections and growths within the skull or spinal canal: the neurologist, however, takes precedence in his interest in certain other disorders of the nervous system. As an example, we may cite epilepsy and cerebral hemorrhage.

EPILEPSY

The meetings of the Association for Research in Nervous and Mental Disease on December 13 and 14, 1946, in New York City were concerned with the topic of epilepsy. For anyone interested in the latest knowledge of this subject the proceedings‡ of this meeting are a requisite, since epilepsy was considered exhaustively in all of its phases. Parenthetically, these monographs which appear annually are among the best neurological literature extant.

Lennox's[18] observations have been corroborated regarding tridione as an effective drug in the therapy of petit mal epilepsy. It is dispensed in capsules each containing 0.32 Gm. (5 grains) and dosage has varied from 1.0 to 2.0 Gm. (15 to 30 grains) a day without much regard for age. Since there is little other therapy that is successful in petit mal, it is important to know about tridione.

Mesantoin (methylphenylethyl hydantoin) while not quite as effective as dilantin sodium in the treatment of grand mal epilepsy and psychomotor seizures, is an anticonvulsant drug useful in those patients who exhibit untoward reaction to dilantin such as uncontrollable ataxia or gum hypertrophy. Drugs of the hydantoin group should be begun in a single daily dose of 0.1 Gm. (1.5 grains) after food for about three days, then the dose is increased by one capsule weekly until the seizures are brought under control. The usual minimal effective daily dose of mesantoin, as dilantin, is three capsules (0.3 Gm.) and the usual maximum daily dose is 0.6 Gm. These drugs are administered best after meals because of their potentiality of otherwise producing gastric distress.

The excellent program of public education in epilepsy under the direction of the American Epilepsy League gains momentum. This is a most important and enlightened development. Patients should be urged to join this organization† and receive carefully edited literature* bearing on their condition. This is a practical necessity in the modern therapy of epilepsy since many questions occur to the patient about his disease that the physician cannot hope to answer. All aspects of epilepsy are considered in these books and pamphlets which are written in language that may be understood by the patient.

It is becoming clear with widening experience that the incidence of psychomotor epilepsy is consideraly higher than had been thought to be the case previously. Evidently this type of epilepsy has been confused in the past with petit mal which occurs rarely in the adult. Any person experiencing rather short episodes of unusual behavior for which he has no memory might well be suspected of suffering from attacks of psychomotor seizures. It should never be forgotten that homicide has been

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‡ Epilepsy. Res. Publ. Ass'n. nerv. ment. Dis., volume 26. Baltimore, Williams and Wilkins Co. 1947. (In press.)

† American Epilepsy League, Room 405, 50 State Street, Boston, Massachusetts.

* e.g., Lennox, W. G.: Science and Seizures: New Light on Epilepsy and Migraine, New York, Harper and Brothers, 2 ed., 1946.

Yahres, H.: Epilepsy—The Ghost Is Out Of The Closet. Published by Public Affairs Committee, Pamphlet No. 98, New York City, 1944.

committed during attacks of psychomotor epilepsy. It is of extreme importance to make this diagnosis correctly since the disorder responds so nicely to dilantin or to phenobarbital, properly administered.

ELECTROENCEPHALOGRAPHY

With increasing experience it has become apparent that electroencephalography is not a tool to be used frequently in diagnosis;[8] rather it is a method of investigation. Possibly the most important diagnostic use of the electroencephalograph occurs when epilepsy is suspected and proof thereunto is badly needed. Then serial electroencephalographic studies done every second or third day may reveal cerebral dysrhythmia, since it has been demonstrated that the electroencephalogram is considerably more apt to be abnormal immediately before, during, and immediately after a fit than it is during the remainder of the interseizure period. At the recent meetings in New York, Frederic and Erna Gibbs[11] reported that cerebral dysrhythmia in patients suffering from epilepsy may be demonstrated in almost 100 per cent of the cases if records are made when the patient is asleep.

NEUROSYPHILIS

There is no longer doubt about the effectiveness of penicillin in the therapy of many types of neurosyphilis.[31]** It should be administered in doses of 50,000 units intramuscularly every three to four hours day and night until about 5,000,000 to 10,000,000 units have been received. At present it seems well to follow a course of penicillin with the older types of therapy; fever therapy may be administered simultaneously with or subsequent to penicillin.

A second course of penicillin has been followed by favorable results in some cases of neurosyphilis where the first course had had little effect.

CEREBRAL COMPLICATIONS OF PNEUMONIA

Baker and Noran[1] have been studying experimentally the encephalitic complications of pneumonia after finding numerous intravascular clots or thrombi in the brains of persons dying with the disease. They noted that 8 cc. of a solution of finely homogenized lung tissue injected intravenously in animals of the same species was followed promptly by convulsions and death. Homologous extracts from organs other than the lung proved innocuous as did lung of heterologous species of animals. The brains from the animals succumbing to the lung inoculations consistently revealed intravascular clots and perivascular damage. These workers believe that the pathologic picture in the brain of the experimental animals is identical to that which they found so commonly in cases with the encephalitic complications of pneumonia.

Baker and Noran noted that the encephalitic symptoms appeared at the beginning of, during, or after the pneumonia during convalescence. They feel that the cerebral lesions probably are due to some change in the clotting mechanism since in all animals all symptoms could be prevented by a preliminary intravenous injection of 100 units of heparin. This work may bear on the pathology of disseminated sclerosis, as Putnam[24] has brought forward evidence concerning intravenous clotting in this disease.

EXTINCTION OR SUPPRESSION PHENOMENON

The neurological examination may be briefly defined as a comparison of the form and functions of one side of the body with those of the other, and of the functions of the patient with those of the examiner. We must now add that simultaneous testing of the two sides may be necessary.

In a series of closely reasoned presentations, Bender and Teuber[3,4] and later Reider[26] have studied the phenomenon termed variously as suppression or extinction, in brain-wounded military personnel. They have demonstrated that certain signs of neurological damage may be brought out only by making the cerebral hemispheres compete simultaneously. One may test a certain sensory function, for example touch or pain, in the usual manner, first on one side of the body then on the other and determine it to be normal. However, by testing touch or pain simultaneously on the two sides it may be shown that the side of the body served by an injured cerebral hemisphere may demonstrate certain deficits in sensory appreciation. Possibly this may be most readily demonstrated in the fields of vision where with the usual perimetry and screen techniques the visual fields may be considered to be normal. Yet simultaneously presented objects in both visual fields may result in fading of the object in the field subserved by an injured lobe. This phenomenon was termed "visual inattention" by older neurologists who recognized it as a precursor to the visual field defect in progressing disease.

FASCICULATION OR "FIBRILLATION" OF MUSCLE

Particularly to reassure the seemingly numerous physicians who occasionally suffer from muscle fasciculations, mention should be made of the benign form. Before doing so, however, it should be noted that the muscle fasciculation that accompanies the inexorable advance of amyotrophic lateral sclerosis is not benign; on the contrary it is a most ominous portent. However, it usually is not found by the patient; as a rule he is unaware of its existence until it is called to his attention by a physician.

Benign muscle fasciculation[10] is of reasonably frequent occurrence, particularly toward the end of the day when fatigue is maximal. This type of fasciculation usually limits itself to a single muscle and the movement is somewhat coarser than that acompanying gradual muscle and anterior horn cell deterioration, and it usually disappears after a night's sleep. I have observed cases of benign muscle fasciculation in which certain muscles, particularly those of the calves, are continuously in small movement which has been so aptly described

** See the series of articles on the therapy of various types of syphilis with penicillin, which appeared in the January 4, 1947, issue of the Journal of the American Medical Association.

as resembling that of a bag of worms. This phenomenon continues for years and is innocuous except as it annoys.

Fasciculation of muscles may be observed in disorders of the peripheral nerve.

PSYCHOSOMATIC DISORDERS

A most significant article by Halliday,[12] a doctor of public health in Glasgow, has recently appeared with an analysis of the factors responsible for the upward trend of psychosomatic organic affections. Using epidemiological techniques, Halliday has given the first clear indications why we are being inundated with psychosomatic disorders in this era, and he also gives reasons why hysteria is becoming a rarity. This contribution is of such timeliness that it should be read by every physician, since each of us is faced daily with some aspect of these disorders.

As for the neurologist, one need only survey his practice to find irrefutable evidence that he should have an orientation to psychiatry. By far the great majority of patients who come to the neurologist are those whose illnesses stem from emotional disturbance. If the neurologist handles these people without psychiatric insight, his practice is doomed to futility. Both his practice and his increasing concern with chronic disease leave the neurologist no choice but that of understanding and utilizing modern psychological concepts.

An increasing number of disorders previously thought to be of neurological origin primarily, are responding to psychotherapy properly administered,* and there are indications that the list will be lengthened with the passage of time. Many of the chronically painful syndromes such as headache, the neuralgias, myalgias, causalgias require psychological insight, since it must be obvious to us that persons react differently to various noxae. It should be clear that there must be reasons for such differences and that they might best be sought for in the psychological sphere.

Migraine: The syndrome of migraine is seemingly being widened to include many chronic painful conditions about the head and neck and shoulders, including the ubiquitous atypical facial neuralgia.[36] It is quite certain that migraine is a protean disease, that its manifestations are myriad.

Recent work[28] has gone far toward proving the prescient doctrines postulated so long ago by Latham[17] which briefly stated are that the initial symptoms of migraine are the result of spasm of intracerebral blood vessels and that the headache itself is due to dilatation of vessels in the scalp. In 1872 Peter Wallwork Latham, then Downing Professor of Medicine at Cambridge, noted further that "sufferers from migraine possess what is called the nervous temperament, their brains are excitable, their senses acute and their imaginations free. The attacks are induced by . . . strain of the feelings, such as grief, anxiety . . ."

We have learned, slowly to be sure, that Doctor Latham's hypotheses are valid. Sufferers from migraine, as he clearly enunciated, fit into a personality pattern. They are neat, meticulous, efficient, and orderly people who, despite their facade of quiet, good nature are subconsciously disturbed by their less fussy and less efficient fellow men. When the person suffering from migraine is helped to become cognizant of the trivial environmental happenings which upset him, he may then be able to prevent the occurrence of some if not all of his disabling attacks, a prevention which surpasses many of the symptomatic forms of temporary relief.

Post-Traumatic Syndrome: For an excellent statement of reasons for the steady increase in automobile accidents, reference should be had to an article by Evans.[9] Here is a problem in which medicine will soon have to take a hand; as Evans has noted, rightly we think, such a state of affairs would not continue unless it gratified something pretty deep in the national psyche.

Studies of post-traumatic headache[30] are clarifying this quite common disorder. Simons and Wolff[32] have pointed out that the danger of threats to the integrity of the head because of the implications concerning "brain" initiative, alertness and intelligence in our society, jeopardize the security of the moderately insecure and undermine the poorly adjusted. Associated emotional reactions are accompanied by physical changes in skeletal muscles (sustained contraction) and blood vessels of the scalp that result in headache. The occurrence of headache arouses fresh anxiety and convictions of impending catastrophe.

The attitude of the physician caring for patients with acutely injured heads is of manifest importance as regards recovery. The fearful, overly cautious physician who betrays his insecurity by requiring immobility for weeks and months following injury, aids and abets his legal brethren who prevent the clearing away of the legal aspects of the situation until it may be determined just how badly off the patient may become. This chasing-the-rainbow technique results in nothing so much as frustration. The possible loss in quick financial settlement will never in any case outweigh the devastating effects of prolonged illness of increasing severity which almost invariably are engendered by these methods.

An indisputable fact that the physician and particularly the surgeon cannot afford to neglect is that the prevention of chronic post-traumatic headache is more readily attainable than its cure. Reassurance and interpretations in the acute stage often allay anxiety so that head sensations assume

* One often is asked to explain how psychotherapy is done, the questioner obviously expecting to try it at the next opportunity. One may as well expect to remove a brain tumor or a foreign body from a bronchus after a few kind words. While it is true that most contacts between physician and patient contain in them elements of psychotherapy, such cannot be expected to effect any but the most superficial of emotional disturbances. A neurosis in development for decades may not be expected to be superficial, and is no less difficult of eradication than many another disease of long standing. (The reader is referred to the book on the subject by Franz Alexander and Thomas French, "Psychoanalytic Therapy. Principles and Applications." Ronald Press Co., N. Y.) However, it seems quite certain that if we are to stem the mounting tide of psychogenic disorders, the general practitioner of medicine has got to learn something about effective psychotherapeutic techniques. It goes without saying that the modern student of medicine should know about them at the time of his graduation.

dwindling significance: probably the most important reassurance is the attitude of the physician who gets the patient out of bed early and who, having justly weighed the situation, minimizes the significance of the symptoms.

Probably next in importance is an evaluation of the setting of the accident. If it occurred in a setting of anxiety, resentment and frustration in a person with long-standing maladjustment, the prognosis is obviously unfavorable, particularly since such persons are prone to indulge in what might be termed nugatory fiddling of the legal variety. If there has been no great personality disturbance prior to the accident and the patient understands the place of the accident and its attendant emotions in his entire life situation, it is reasonably certain that the prognosis is good.

Vascular Diseases: If the emotions are able to effect certain transient changes in blood vessel calibre* in migraine, there is every reason to expect that blood vessels in other areas may respond similarly, and indeed relief has been obtained in vasospastic disorders of the extremities by psychotherapy.[22,35] Analogous therapeutic endeavor has been effective in some cases of arterial hypertension.[5] presumably before a state of irreversibility has supervened. Certain reactions within the nose accompanying emotion[15] probably fall within this category of behavior.

Central angiospastic retinopathy has been reevaluated[13,37] in light of its occurrence in young military personnel. It has been shown that under the tension of battle irreversible changes may occur in the retina due to spasm of retinal vessels induced emotionally.

Aphasia: The relief of dysphasia in brain injured soldiers with the use of sodium amytal has been reported by Linn and Stein.[21] They demonstrated that men who had suffered injury to the left cerebrum and who were practically mute could be made to talk under amytal, presumably when certain of their anxieties were relieved with this drug. Such improvement as could be effected with amytal was sometimes maintained in the postsedative period. A report on this technique in civilians who sustained dysphasia during stroke will appear shortly. It is thought if one does not obtain a change with the first amytal interview, subsequent interviews may be effective.

Narcolepsy: This condition which has been considered to be due to some undemonstrable disturbance about the diencephalon finally has been clarified.[16,33] While these attacks of irresistible sleep may be prevented by the use of benzedrine, it may be possible to effect a cure with psychotherapy. Persons suffering from narcolepsy have been shown to escape temporarily into short attacks of sleep from what to them amount to episodes of otherwise insoluble conflict.

Causalgia: There have been several reports in the recent literature[20] on the relief of causalgia by psychotherapy. Causalgia is an intense burning pain which follows in the wake of partial injury to peripheral nerves, particularly those of the extremities, which is worsened by stimuli of almost any variety, even certain sounds accentuate this unbearable pain. The most successful therapy up to now has been blocking appropriate sympathetic ganglia with procaine and/or alcohol.

Painful Phantom Limb: The relief of painful phantom limb by shock therapy has been reported by Pisetsky.[23] Practically all persons who sustain an amputation experience what is called a phantom in that it feels as though the amputated extremity is still a part of the body. Occasionally such a phantom is painful, and such pain has been notoriously unrelievable, although in one instance an extirpation of an appropriate portion of the contralateral parietal lobe[7] afforded relief.

Accumulating experience suggests that extremely chronic, intractable pain of a certain type may be relieved by electric shock therapy. For how long, is not known. This offers an avenue to the psychotherapeutic approach, since patients are not fit subjects for psychotherapy while suffering from extreme pain. Sometimes with the application of a single shock, it is possible to relieve the pain and then proceed with psychotherapy which had been previously inapplicable. Obviously such an approach is not required where other methods of relief are apt to be rewarded with improvement. It is to be reserved for those carefully evaluated patients in whom it has been determined that there is a large psychogenic element.

It is of some interest that prefrontal lobotomy has also been used in the relief of chronic intractable pain of physiogenic and psychogenic varieties. Parenthetically this procedure has resulted in what appears to be permanent relief of vascular hypertension.

THE ACTION OF PLACEBOS

While on the subject of relief of pain the important article by Batterman[2] on the evaluation of analgesic drugs may be noted. Careful studies have demonstrated that regardless of the severity of pain or the underlying organic disease, placebos will result in analgesia in approximately 40 per cent of trials. What is more a patient may be addicted to a placebo and demand its continuous administration.

These effects of placebos demonstrate how utterly futile it is to rely on a drug in the differentiation between psychogenic or physiogenic disorders. Such studies also suggest that we may question the results of those persons who, when testing a supposedly significant substance, control it by the administration of an indifferent substance, noting that the indifferent substance had *no effect whatsoever.* In such tests placebos should have a modicum of effectivity. There is more to the administration of a substance than those mechanistic concepts that have mostly prevailed up to now, would have led us to believe.

CHRONIC DISEASE

Neurology has become almost imperceptibly a science of chronic disease,[29] largely because the more acute diseases of the nervous system have

* An everyday experience is blushing.

been adeptly handled, in part at least, outside the specialty. In the handling of chronic neurological diseases, as well as those conditions other than chronic, that most usually present themselves in a neurologist's office, it has become increasingly necessary for the neurologist to have a proper orientation to psychiatry. There is little possibility of compensating for destroyed nervous tissue by any other than psychological methods.

As has been observed in these notes on recent advances, much of the newer neurological therapy is in the realm of psychotherapy. It ought to be superfluous in this area to note that psychotherapy is not made up of such banalities as the frequently recurring statement to the patient that there is nothing wrong with him or that he must pull himself together. It is now requisite that the neurologist as well as the practitioner have insight into human behavior,[6,12,19,25,27,34] if a large segment of their practice is not to be doomed to futility. As recorded by Halliday in his brilliant analysis, the trend to increased psychosomatic affections is very great and their nature cannot be understood nor can therapy be instituted in the absence of the application of psychosomatic and allied concepts.

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California MEDICINE

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EDITORIALS

The Use of Vitamin Supplements

A great deal has been written in recent years regarding the failure of the diet of the average American to meet satisfactory nutritional requirements, in terms of the modern knowledge of nutrition. The war-time National Nutrition Program was based on the belief that many of us were subsisting on a diet inadequate for optimal nutrition and buoyant health. Without entering into a prolonged discussion of this problem, it seems worth while to point out the possible role of vitamin supplements in meeting this apparent deficiency. At present wheat flour, oleomargarine and certain cereals are being enriched with vitamins and minerals.

What of the widespread use of commercial vitamin preparations as supplements to the diet of Americans? Apparently this is a very widespread practice. Is it sound? There are two schools of thought on this matter. One group is of the opinion that many persons are benefited by so supplementing the diet, with the idea that if there is any possible chance that vitamins may produce better health, sounder teeth and bones, improve vision at night, increase appetites, decrease the incidence of infections, especially of the common cold, and decrease fatigue and increase energy, then the cost of the preparations and the nuisance of taking them would be worth while. If this conclusion were correct, of course all of us would agree with it. Most sound nutritionists and physicians hold the opinion opposite to the one just expressed and disapprove of the indiscriminate use of commercial vitamin supplements as unsound nutritionally and economically. Indeed, the opinion of this group as exemplified by the Council on Foods and Nutrition and by the Council on Industrial Health of the American Medical Association is that the giving of vitamin pills to presumably healthy adults working under normal conditions is irrational from the therapeutic point of view, unwise nutritionally, and uneconomical. The real solution to the problem is one of an adequate diet for every one, for vitamins are included and in such a diet they are in better balance, more palatable, and more economical.

Of what value then are vitamin mixtures? A committee of the American Medical Association after studying this problem came to the sensible conclusions that vitamin mixtures when properly formulated are convenient, economical and provide the physician rational means of treating or preventing multiple vitamin deficiency. It is wise in the formulation of acceptable mixtures that the vitamins in a product should be present in some simple relationship to the normal daily requirement of them. In so far as possible, natural products, such as cod liver oil and dried brewers' yeast, should be used in these mixtures to which may safely be added synthetic preparations such as thiamine, riboflavin, niacin, and ascorbic acid. These mixtures, so far as possible, should be used as supplements to a normal diet.

In the final analysis, benefit will be greatest when natural foods are least interfered with and when, in the preparation of his food, man makes few changes which need to be corrected subsequently by supplementing the diet with vitamin preparations.

The Coming 1947 Annual Meeting

The Annual Meeting of the California Medical Association will be held Wednesday, April 30 to Saturday, May 3, inclusive, at the Biltmore Hotel, Los Angeles. The following is a preliminary outline of the scientific program planned for this meeting:

There will be approximately ten large general meetings, the programs for which have been arranged by the cooperative efforts of the officers of several different sections. There will be approximately 25 special or section meetings in which from one to three sections have combined their talents in order to present a group of papers on modern scientific topics.

The guest speakers and their tentative subjects are as follows:

1. A. W. Oughterson, M.D., Medical Director of the American Cancer Society, New York City, will speak on "Planning the Attack on Cancer," "The Diagnostic Problem in Gastro-Intestinal Cancer," and one other subject. He will also discuss an important paper on Visible Tumor Clinics before the Section on Dermatology and Syphilology.

2. Hobart A. Reimann, M.D., Professor of Medicine, Jefferson Medical College, Philadelphia, will present papers on "Virus Pulmonary Diseases," "Periodic Diseases," and "What's New in Infectious Diseases." He will also conduct one of the cases in the Clinical-Pathological Conference.

3. James T. Priestley, Mayo Clinic, Rochester, Minnesota, will talk on "The Surgical and Physiological Aspects of the Treatment of Duodenal Ulcer," and will discuss one of the cases in the Clinical-Pathological Conference.

4. Albert Snell, M.D., Professor of Medicine, Mayo Foundation, Rochester, Minnesota, will talk on "The Management of Infectious Hepatitis," and "What's New in Gastroenterology," and will discuss certain other papers.

Preceding the meeting will be the annual Clinical Radiological and Pathological Conferences of the Cancer Commission. Proven cases of special diagnostic interest will be shown; improved therapeutic methods and end results will be discussed; miscellaneous histo-pathological tumor problems will be presented. These important sessions will be held on Tuesday, April 29, at a location to be announced in our next issue.

There is a trend toward the holding of more general meetings and fewer section meetings at annual state medical society conventions. You will be asked to express your opinion at the business meeting of your own section on the questions: "Do you wish more general meetings at annual sessions?" "Do you approve the holding of section meetings on one day of each annual session, with multiple brief papers, the others days to be devoted to general meetings?" Your Section Officers will also be asked to consider polling you on the question of appointing a Section Secretary for a period of about three years (instead of the current one year) so that the appointee may gain familiarity with the problems of arranging improved scientific programs and with other duties of the office.

If you plan to come to Los Angeles for the state meeting, it is suggested that you make your hotel reservations at once, and that you plan to stay for the full four days of the meetings. The opening session will be at 10 a.m. on Wednesday, April 30, and the closing postmortems on Saturday afternoon, May 3.

76th Annual Session
California Medical Association
Los Angeles
April 30—May 3, 1947

For hotel reservations, write Convention Department, Los Angeles Chamber of Commerce, 1151 South Broadway, Los Angeles, Calif.

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NOTICES AND REPORTS

NEWS *of the* DAY *in the* C.M.A.

January 5—Executive Committee and Committee on Public Policy and Legislation (Murray, Remmen, Kindall) meet to discuss legislative program. Session lasts to 5:30, by which time all are agreed that it is fortunate that legislative sessions come only once in two years. C.M.A. bills well mulled over.

January 11—Committee on Scientific Work in all-day meet with secretaries of scientific sections, arranging 1947 Annual Session program. Much progress made and an excellent program shaping up. Plan to print complete program in March issue CALIFORNIA MEDICINE and to have session programs available before meeting starts.

January 12—Council meets. This is the day when the small printed agenda stretches out to point where it is unanimously decided to make next Council meeting a two-day affair. Time conserved at lunch hour by serving buffet lunch. (There is still a discussion on whether you eat more at a table than when you serve yourself.) By end of day Council has digested seven verticle inches of file folders and still has unfinished business to turn over to Executive Committee. The next meeting will again be at the Fairmont on Saturday, March 15, through 16th.

January 16—An inquiry today as to the ability of a California clinic to diagnose and treat Parkinson's syndrome by mail. Inquiry and reply add to a fat file on a colleague (not Dr. Brinkley) who believes this can be done.

January 17—Meeting of C.M.A. Cancer Commission in San Francisco at 6:30 p.m. Items were discussed along the lines of a statewide project to help needy patients secure hospitalization when in hospitals for curative procedures; discussion of uniform records for Cancer Detection Centers and Tumor Boards; question of establishing central Tumor Registry either under C.M.A. control or Department of Public Health control; completion of details for publication of new edition of Cancer Commission Studies, the up-to-date informative booklet for doctors on what's new in cancer diagnosis and treatment.

January 20—California Committee for Voluntary Health Insurance opens drive in Sacramento County with meeting of civic and state leaders in Senator Hotel. Audience of 400 applauds John Cline in hard-hitting speech pointing out lack of need of regimentation to make medical service span the gap between doctor and patient.

January 22—Executive Committee eats at 6:30, meets at 7:30, goes home at 1:30 a.m. Problems of legislation and general business thrashed out until next meeting two weeks off.

January 23-24—Details of 1947 Annual Session worked out. House of Delegates will meet April 30 and May 2, general sessions on April 30 and May 2, specialty sections meeting May 1 to 3. Lively program promised. (For room reservations, write Convention Department, Los Angeles Chamber of Commerce, 1151 South Broadway, Los Angeles. Delegates write to C.M.A. office.)

January 28—Governor Warren takes the lid off his Pandora's Box and gives us just a peek at his 1947 model health insurance program. The initial look makes the whole affair look like Pandora, all right—there seems to be plenty of bugs.

January 30—Arrangements made for lunch on February 12—Lincoln Day—in honor of Doctor Walter Judd of Minnesota, one of the seven physician members of Congress. In California on a trip sponsored by the GOP, Doctor Judd will meet with medical leaders to discuss, among other things, medical legislation and health insurance.

January 31—Planning today for a joint legislative meeting with the dentists, pharmacists, dispensing opticians and allied groups. Started five years ago, these joint meetings bring out the strong and weak points in the several legislative programs, offer encouragement for beneficial bills and indicated treatment for others.

CPS—more members, income, problems, experience

Having surpassed all anticipated enrollment figures during 1946, California Physicians' Service has entered the new year well on the way to perfecting a prepay medical service program that will be a credit to the medical profession of California.

A glance at the record of achievement in 1946 shows:

In January, 1946, total beneficiary membership of California Physicians' Service was 176,880 people. As of January, 1947, slightly more than 420,000 Californians are participating in the C.P.S. commercial program. Nearly 250,000 new members were enrolled during the year, a rate of over 20,000 persons each month.

This enrollment is noteworthy because throughout the year employment turnover was at an all time high and the uncertainty of postwar conversion with its economic instability made the work of sales and reservice difficult. While business in general was undergoing its reconversion from war to peace, the California Physicians' Service membership rosters were constantly in flux. However, the C.P.S. sales and operational staffs proved that private organization methods can accomplish the tasks thus imposed.

When membership figures jumped in such a short period,

internal operational problems multiplied rapidly. Shortages of trained personnel and office equipment, combined with severe shortage of space, made the administration doubly complicated.

Again referring to the record, January, 1946, showed a monthly income of $253,000, as compared with $560,000 for January, 1947. It should be noted that these figures do not include the income derived from the Veterans' Administration-C.P.S. contract.

In the beginning of 1946, C.P.S. had 5,739 physician members. A year later the roster listed a participating physician membership of 7,781—a net gain of 2,042 new physician members during the year.

Besides the long strides made in the commercial program, the year saw establishment of the Veterans' service program and the farm program with the California State Grange. Under these, some 40,000 veterans have already been treated by private physicians (at government expense) and over 11,000 rural dwellers are participating in the new Grange program.

In Memoriam

COOKE, A. BENNETT. Died at Los Angeles, December 8, 1946, age 79. Graduate of Vanderbilt University School of Medicine, Nashville, Tennessee, 1891. Licensed in California in 1912. Doctor Cooke was a member of the Los Angeles County Medical Association; a Life Member of the California Medical Association since 1942, and an Affiliate Fellow of the American Medical Association.

✤

CRANE, HOMER WINFIELD. Died of a heart attack at Berkeley, December 19, 1946, age 66. Graduate of the Cooper Medical College, San Francisco, 1909. Licensed in California in 1909. Doctor Crane was a member of the Alameda County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✤

HILL, HAROLD PHILLIPS. Died at San Francisco, December 31, 1946, age 70. Graduate of the University of California Medical School, 1901. Licensed in California in 1901. Doctor Hill was a member of the San Francisco County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✤

HIRSHFELD, SAMUEL. Died from a coronary ailment, December 13, 1946, age 51. Graduate of Columbia University College of Physicians and Surgeons, New York, 1918. Licensed in California in 1932. Doctor Hirshfeld was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

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SCHILLING, WALTER. Died at San Francisco, December 16, 1946, age 54. Graduate of Harvard Medical School, Boston, Massachusetts, 1925. Licensed in California in 1925. Doctor Schilling was a member of the San Francisco County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

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WESTERHOUT, CHARLES EDWARD. Died from myelogenous leukemia, at Oakland, November 20, 1946, age 44. Graduate of Stanford University School of Medicine, 1929. Licensed in California in 1931. Doctor Westerhout was a member of the Orange County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

Annual Drive of the American Cancer Society

The American Cancer Society has held an annual drive every year since 1914. Since that date, and especially since 1936 (when the Field Army of the Society was created), progressive groups throughout the country have supported the annual drive and program of the Cancer Society.

Since 1938, April has been designated by Presidential proclamation as National Cancer Control Month. The California Division of the American Cancer Society, under the vigorous leadership of Mrs. Ryer Nixon, State Commander, is completing preparations for its annual campaign to commence April 1, 1947.

THE PROGRAM

The twelve-point program of the California Division should be familiar to all physicians. The following shows how the funds collected in each annual cancer campaign are distributed:

I. *60% of our funds are distributed for cancer control in California.*

These funds are distributed in line with the following 12-point program adopted by the Board of Directors of the California Division of the American Cancer Society:

1. Financial support of established *tumor centers.*
2. Assistance in the organization of new *tumor centers* and financial aid in the provision of some equipment, apparatus and personnel.
3. Financial assistance to *detection centers* conforming to standards set by the California Medical Association and approved by it.
4. Financial support for the hospitalization of needy cancer patients.
5. Provision of surgical dressings and transportation for cancer patients.
6. Financial assistance for establishment of social service and visiting nurse service for cancer patients.
7. Allocation of funds for special clinical tests for the detection and diagnosis of certain types of early cancer at laboratory centers in Los Angeles and San Francisco.
8. Establishment of cancer information and educational centers throughout the state.
9. Organization of postgraduate courses for physicians in the diagnosis and treatment of cancer. (These courses are held in Los Angeles, San Francisco and other centers.)
10. Education of the public through radio, press releases, by qualified speakers and through the distribution of literature which presents the facts about cancer, its danger signals and proper treatment.
11. Promotion of legislation to provide better care for cancer patients.
12. Administration including campaign expenses.

II. *40% is expended by the National Office of American Cancer Society.*

1. 15% is applied to nation-wide education and administration.
2. 25% is devoted to all-out coordinated research in the nature, causes and cure of cancer directed by the National Research Council. (Some of these funds return to California for research.)

CALIFORNIA CANCER CONTROL PROGRAM

The chart below shows the component activities of the Cancer Society, the Cancer Commission and affiliated groups.

California Division, American Cancer Society

Lay Education; Service to Cancer Patients; Campaign for Funds

1. Financial support for the clinic program of the California Medical Association.
2. Financial support for post-graduate cancer courses for physicians.
3. Public education through meetings and distribution of literature.
4. Establishment of information centers.
5. Education through secondary schools and colleges.
6. Subsidies to tumor and detection centers.
7. Volunteer workers for tumor centers.
8. Hospitalization for needy cancer patients.
9. Home nursing and surgical supplies.
10. Social service and follow-up workers.
11. Hospital beds for advanced cancer patients.
12. Campaign for funds.

California Medical Association, Cancer Commission

Professional Education and Relation of Physicians to the Program

1. Supervision of lay education and medical service programs of the American Cancer Society.
2. Postgraduate cancer courses for physicians (cooperating with medical schools).
3. Medical Society meetings.
4. Symposia and cancer days.
5. Cancer manual for physicians.
6. Assistance in organization of detection centers.
7. Assistance in organization of new consultation tumor centers.
8. Survey of standards of tumor centers and detection centers on state level.
9. Cooperation with Cancer Committees of County Medical Societies.
10. Survey of cancer facilities and cancer needs with County Medical Society.
11. Central Tumor Registry with Department of Public Health.

California State Department of Public Health

Survey and Statistics; Education of Nurses and Medical Social Workers

1. Training of public health nurses, statisticians and medical social workers.
2. Statistical research.
3. Consultation for hospitals and clinics on record systems.
4. Assistance to local health agencies in developing cancer programs, e.g., public health nursing services.
5. Liaison with other governmental agencies — State and Federal.
6. Survey of cancer facilities in the state with Cancer Commission of C.M.A.
7. Central Tumor Registry (tentative).

Cancer Committee, County Medical Societies

1. Medical education in the County Society.
2. County Medical Society panels of physicians who will accept referred cancer patients for diagnosis and treatment.
3. Service on boards of directors and executive committees of County Branches of American Cancer Society.
4. Speakers' Bureau for lay education.
5. Approval of service projects of the American Cancer Society.
6. Stimulate the formation of tumor and detection centers where facilities are available.
7. Enlist physicians for Detection Centers.
8. Encourage use of Tumor Centers.
9. Assist in the April campaign for education and funds.

Council Meeting Minutes

TENTATIVE DRAFT OF THE MINUTES OF THE 338TH MEETING OF THE COUNCIL, CALIFORNIA MEDICAL ASSOCIATION

The meeting was called to order by Chairman Bruck at 9:30 a.m., Sunday, January 12, 1947, at the Fairmont Hotel, San Francisco.

1. *Roll Call:*

Present were President-Elect Cline, Speaker Askey, Vice-Speaker Alesen, Councilors Johnston, Crane, Henderson, Anderson, Kneeshaw, Bruck, Kindall, MacDonald, Green, Cherry, MacLean, Shipman, Moody, Thompson and Regan, Secretary Garland, and Editor Wilbur.

Absent: President McClendon (grounded by bad weather enroute to meeting).

Present by invitation were: Dwight H. Murray, Chairman of Public Policy and Legislation; Philip K. Gilman of the State Department of Public Health; Messrs. Howard Hassard and George Smith of legal counsel; executive secretaries Frank Kihn and Rollen Waterson of San Francisco and Alameda counties; Mr. Clem Whitaker, public relations counsel; Mr. Ben Read, legislative representative; Mr. William Bowman, executive director of C.P.S.; Mr. Jay Ketchum, executive vice-president of Michigan Medical Service; Mr. John Hunton, executive secretary, and Mr. William Wheeler, assistant executive secretary.

2. *Minutes:*

On motion duly made and seconded, the minutes of the 337th meeting of the Council were approved with the following corrections:

(a) Item No. 9 to show that the outline presented informally by Doctor Russel V. A. Lee to President-Elect Cline constituted a tentative proposal only and not an abstract of Dr. Lee's report to the Senate Interim Committee on Health Insurance.

(b) Item 6(a) to show the additional appointments of Doctors George Uhl and William P. Shepard as members of the Editorial Board, representing public health.

(c) Item 14 to show the presentation of a request for legal opinion from Alameda County regarding funds received for medical services from part-pay patients in county hospitals. This request was referred to legal counsel for opinion.

3. *Membership:*

(a) A report of membership as of January 10, 1947, was received.

(b) On motion duly made and seconded, 11 members whose 1946 dues had been received since November 10, 1946, were reinstated to active membership.

(c) On motion duly made and seconded, it was voted that the central office send notification to all county societies regarding the so-called election of regular members to county societies who are not members of the Association and pointing out the constitutional prohibition against such elections. Members must pay county and state dues to be a member of the county society.

(d) On motion duly made and seconded, seven members were elected to Retired Membership. These were: Clark J. Burnham, Sr., Alameda County; Marie H. Heinatz, Alameda County; Martin J. Lacey, Alameda County; Benjamin Thomas, Alameda County; Robert A. Camphell, Los Angeles County; C. Zeno Holt, Alameda County, and Grunyd C. Coffey, Ventura County.

(e) On motion duly made and seconded, three members were elected to Associate Membership. They were as follows: David Frost, Alameda County; Loren Larsen, Alameda County, and William S. Fife, San Joaquin County.

(f) The situation in San Francisco County, where certain members, including Doctors Ernst Wolff and Leona Bayer, have had their membership terminated because of delinquent payment of a portion or all of their 1946 dues, was discussed. Doctors Wolff and Bayer have applied to the C.M.A. for a review of their cases. Mr. Hassard pointed out that the Council should set a date for the hearing of their appeals and appoint a committee to try to effect a reconciliation of the differences. On motion by Cline, seconded by Alesen, it was voted that the date of the next Council meeting be set as the date of the hearing and that Doctors H. Gordon MacLean, Lloyd Kindall, and R. S. Kneeshaw be named as the conciliation committee.

4. *Financial:*

(a) A statement of cash balances as of January 10, 1947, a statement of income and expenditures for December and for the six months ended December 31, 1946, and a balance sheet as of December 31, 1946, were received.

(b) On motion by Green, seconded by Moody, it was voted to transfer to the Trustees of the California Medical Association the $150,000 in U. S. Treasury bonds purchased as authorized at the 337th Council meeting.

(c) Doctor Cline reported on conferences held in regard to the salary of the Editor. He moved, seconded by Anderson, that the Editor's salary be set at $300 per month, retroactive to the time the Editor took office, early in May, 1946.

Doctor Alesen offered an amendment, which was seconded, to set the Editor's salary at $500 monthly. The amendment was lost on a vote of 2 ayes and 7 noes.

The original motion was then unanimously voted.

5. *Public Relations:*

(a) Mr. Whitaker reported on the present state of the public relations campaign, particularly with reference to the new proposal for a compulsory health insurance bill by Governor Warren. He stated his belief that the Association is better prepared to meet this legislative threat than it was two years ago, principally because of the continued program of public education in support of the voluntary forms of health insurance available to the people of California.

(b) Mr. Hunton discussed the advertising program in the Alameda County Medical Association, which has established a Bureau of Medical Economics to handle, among other things, the collection of past due accounts and the establishment of fair medical fees in proportion to the ability of the patient to pay. Through the operation of this program, the county medical society believes it is able to guarantee that all residents of Alameda County may secure needed medical attention at a cost within their means.

An advertisement to this effect was run in the daily newspapers of Alameda County in late December, 1946, at which time an open letter was sent to Governor Warren, notifying him that the

Alameda County Medical Society had tried to locate that person who needed medical attention and had not received it because of his belief that he was unable to pay its cost.

Mr. Hunton stated that at a joint informal meeting of the Executive Committee and the Committee on Public Policy and Legislation held on January 5, 1947, a resolution had been adopted to petition the Council for a continuation of this campaign and possible campaigns in other counties, the C.M.A. to furnish financial and other assistance.

There was general discussion on the possibilities of public education through such a campaign and on the cost of such advertising.

An amendment was offered by Kindall, seconded by MacLean, that copies of such advertisements be sent, at the discretion of the Committee on Public Policy and Legislation and the public relations counsel, to all members of the State Legislature and to the secretaries of all county medical societies. This amendment was unanimously adopted.

A further amendment was offered by Askey, seconded by Moody, that the cost of such advertising to the Association be limited to not more than $10,000. This amendment was unanimously adopted.

The original resolution, as amended, was then put to a vote and adopted.

6. *Public Policy and Legislation:*

Doctor Murray reported on a meeting held between members of the Executive Committee and the Committee on Public Policy and Legislation.

Mr. Read reported on the status of the Legislature and discussed the information available in Sacramento.

Mr. Hassard was then called upon to discuss individual bills which had been ordered introduced by the House of Delegates or otherwise agreed upon at previous meetings. Among these were bills:

(1) To provide that an employer may contract for the cost of voluntary health care for all his employees except those who request to be omitted from such coverage.

(2) To insure the right of an individual to dispose of all or any part of his body at death.

(3) To insure that relatives of a deceased person carry out the expressed wishes of the deceased as to the disposal of all or any part of his body.

These measures were ordered by the 1946 House of Delegates and bills prepared for introduction at this session of the Legislature.

(4) On the House of Delegates order to introduce legislation to replace the coroner system with a system of medical examiners, Mr. Hassard called attention to the practical difficulties of drafting such legislation, particularly since every reference to the coroner in every code on the statute books would require amendment. He stated that the author of the original House of Delegates resolution had been apprised of these difficulties and had suggested that a resolution be introduced to establish an interim committee of the Legislature to study the coroner system with a view toward improving it, including an investigation of the medical examiner system.

On motion by Cline, seconded by Alesen, it was unanimously voted that the Council express its opinion that there is a grave question concerning the wisdom of introducing the proposed House of Delegates legislation at this time, that the Council express complete confidence in the Committee on Public Policy and Legislation and wishes to support this committee before the House of Delegates should the question arise that the committee had not been able to comply fully with the wishes of that House.

(5) Hospital District Law — Mr. Hassard reported the agreement of Legislative and Executive Committees on a bill to provide that hospitals constructed under this law operate under the minimum standards of the American College of Surgeons and/or the Council on Medical Education and Hospitals of the A.M.A., and be prohibited from employing physicians in such a manner as to bring a financial profit to the hospital.

On motion by Cline, seconded by Askey, this bill was unanimously approved.

(6) Sickness disability law — two amendments to this bill have been proposed, one to eliminate chiropractors as recognized "physicians" within the meaning of the law, and (2) restrict to a statement of physical findings the certificate signed by the physician in cases coming under this law.

On motion by Cline, seconded by MacDonald, it was unanimously voted that the Legislative Committee introduce these amendments.

(7) Medical Practice Act—The removal of licensing requirements from first-year residents (in addition to internes) in approved hospitals was discussed. It was suggested that hospitals approved for resident training should not be penalized in the securing of first-year residents by the requirement that such residents first obtain California licenses.

On motion by Cline, seconded by Moody, it was unanimously voted that the Legislative Committee be authorized to introduce a bill to add the words "and residents" to the present law which permits the service of "internes" without licenses in approved hospitals for a period of two years.

(8) S.B. 1306 of the 1945 session—This bill was introduced for Hospital Service of California, to provide that insurance companies organized under the non-profit sections (Blue Cross sections) of the Insurance Code be allowed to indemnify their policyholders for surgical procedures performed outside of hospitals. The C.M.A. opposed this measure in 1945 and it was not passed. Doctor MacLean stated that H.S.C. now wished to re-introduce a similar measure.

It was moved by Kneeshaw and seconded by Anderson that the Association disapprove proposed reintroduction of this bill. An amendment by Shipman, accepted by the mover and second, added that the disapproval was based upon the reason that such a bill would set back the efforts of both medical and hospital interests to effect a consolidation of effort of existing medical service and hospitalization interests. On a vote, the amended motion was carried unanimously except for Councilor MacLean, whose vote was recorded as "no."

(9) Doctor Philip K. Gilman discussed the present problems of rural medical care and urged that a committee of two or three Councilors be appointed to meet with the Director of Public Health and others to work on such problems. On motion by Kneeshaw, seconded by Moody, it was voted that a committee of three be so appointed.

Doctor Gilman also urged that the Association participate in the prospective work of a Committee on Hospital Care proposed to include representatives of medicine, dentistry, nursing, hospitals, the State Department of Health, etc. No action was requested on this matter.

(10) Funds of county hospitals—Discussion was held on the advisability of introducing or supporting a bill to provide that funds received by county hospitals from part-pay or full-pay private patients, representing payment for professional medical services rendered by members of county medical societies, be turned over to such county medical societies for professional scientific purposes. On motion by Cherry, seconded by Green, it was voted that the Legislative Committee confer with representatives of the Association of California to determine whether or not that association would be agreeable to supporting such legislation and, if so, would be willing to introduce it.

(11) Average daily school attendance—A letter asking the signified approval of the Association on a petition to amend the school laws by permitting absences due to illness to be counted as school attendance in calculating state funds paid to school districts on an average daily attendance basis was presented. On motion by Kindall, seconded by Kneeshaw, it was voted that the Council signify such approval.

(12) State Board of Health Legislative Program—Mr. Hassard was called upon to discuss various legislative proposals of the State Board of Health. These were as follows:

(a) Additional aid for tuberculous patients. Approved by Council.

(b) Additional state aid to local health departments—not approved.

(c) Increasing hospital districts to maximum county population of 500,000 from present 200,000. Not approved.

(d) Blood banks—State Department of Health to offer technical assistance and supervision to community blood banks for procurement of blood for processing by private laboratories. Approved by Council.

(e) Funds for State Department of Health to carry on research in heart disease, cancer and chronic conditions. Not approved.

(f) Hospital subsidies—to provide state funds to furnish half of amount to be raised within the state to match on a 2-to-1 basis the federal funds available under the Hill-Burton bill. It was brought out that such funds would be available only to county hospitals unless a state constitutional amendment is passed by the Legislature and later by the people. On motion by Cline, seconded by Kneeshaw, the Council approved this measure and further provided that the Legislative Committee be authorized to prepare a bill for a hospital loan law suitable for use by municipal and private hospitals.

(g) Hospital survey act—to provide for the State Department of Health to receive federal funds for hospital construction. Approved by Council.

(h) Crippled Children's Act—to eliminate court approval and procedure in crippled children's cases and to substitute therefor the approval of the State Department of Health and State Department of Social Welfare. Not approved.

On motion by Cline, seconded by MacDonald, it was unanimously voted to authorize the Committee on Public Policy and Legislation to modify all instructions on positive actions given by the Council, in accordance with exigencies arising during the course of the legislative session.

7. *California Physicians' Service:*

Mr. Bowman reported that January revenues of C.P.S. amounted to an annual rate of $9,130,000, divided $6,130,000 for commercial program and $3,000,000 for the veterans' program. The deficit at the start of January was $197,042, or the equivalent of only 11.7 days of income.

Utilization of service has increased from an average of $18 a case to about $23 a case, much of this utilization representing a high demand for elective surgery. There are now 7,690 physician members, many of them returned veterans who have enjoyed practically unlimited laboratory services in military life and carry this program into their private and C.P.S. practice. A slight reduction in the average cost per case is now appearing.

The increase of 25 per cent in members' dues has now been applied to about 70,000 members and is being applied as rapidly as group contracts expire and come up for renewal. The total commercial membership in January, 1947, was 419,000, an increase of 137 per cent over the 177,680 members a year earlier. There are now 122,000 members served with hospitalization in northern California. At the present rate of growth C.P.S. expects 1,000,000 members by January, 1949. The growth in membership is attributed in large part to the public relations program of the C.M.A. The community enrollment drives in the C.M.A. programs are considered successful on the whole, although there have been some instances where results are not entirely satisfactory.

Mr. Bowman reported further on the business survey of C.P.S. made by McKinsie & Co., business analysts, in response to one of the recommendations of the C.M.A. Committee on Prepaid Medical Care. This survey shows that the difficulties experienced by C.P.S. are mainly the results of growing pains, including inadequate office space and inadequate and untrained personnel. The survey indicates that the business policies and practices of C.P.S. are in accord with sound business standards but must be altered as further growth takes place and makes inadequate those systems and methods which are ample to handle today's business. C.P.S. plans to make this type of business survey a continuing check on its organization.

8. *Congress of Parent-Teachers Association:*

Chairman Bruck announced the appointment of E. Vincent Askey as chairman of a committee to meet with a similar committee from the P-T A to discuss problems of mutual concern. Doctors Louis J. Regan and H. Gordon MacLean will also serve on this committee. It was agreed

that the Association notify all county society secretaries to contact their local P-T A organizations and work with them on the program of pre-school physical examinations.

9. *University of California at Los Angeles Medical School:*

A report was made that a dean had been tentatively selected for the medical school to be formed at the University of California at Los Angeles but that his appointment had been temporarily put over. On motion by Alesen, seconded by Moody, it was unanimously voted that the Council offer every assistance to the Board of Regents of the University of California in the selection of a dean for the UCLA medical school and that the Council chairman notify the chairman of the Board, Dr. Robert Gordon Sproul, to that effect.

10. *Board of Nurse Examiners:*

Doctor Cline reported on the issuance of an order by the Board of Nurse Examiners limiting the attendance of student nurses in classes or in clinical work to a maximum of 40 hours per week. This order is being protested by at least two schools of nursing (Standard and UC) and by the Association of California Hospitals. On motion by Cline, seconded by Kneeshaw, it was voted that a committee be appointed to meet with the Association of California Hospitals to work out a suitable program to combat this order.

11. *Cancer Commission:*

The Secretary presented a resolution adopted unanimously by the Cancer Commission at its meeting on December 28, 1946, and transmitted to the Council for its information. He explained that the essential reason for the adoption of the resolution was the need for clarification in regard to the drive for funds by the official statewide organization responsible for the State Cancer Program. The preamble of the resolution listed 16 important points concerned with the over-all statewide cancer picture in California; the resolution itself was as follows:

> Resolved, By the Cancer Commission of California Medical Association that this Commission do, and it hereby does, by unanimous vote, recommend to the Board of Trustees of Cancer Prevention Society that it postpone until May 1, 1947, the continuance of its campaign for funds. Further that if this be not done, we respectfully recommend that the Los Angeles County Medical Association as a constituent member of California Medical Association, withdraw the approval which it has heretofore given to the Cancer Prevention Society, for the reason that, as stated in the preamble, cancer control in California on a statewide level will be seriously jeopardized.

The Secretary explained that the Chairman of the Cancer Commission requested that the matter be brought to the attention of the Council and that he respectfully requested the Council merely to take it under advisement at the present time.

12. *Palo Alto Clinic:*

The status of the Palo Alto Clinic contract with Stanford University was discussed and it was brought out that the Executive Committee was due to make a report on this matter. On motion by Cline, seconded by Moody, it was voted that the report be considered at the next Council meeting and that the parties at interest be invited to be present at that time.

13. *Time and Place of Next Council Meeting:*

It was voted to hold the next Council meeting at 12:30 p.m. lunch on Saturday, March 15, 1947, to continue that afternoon and the next day, Sunday, March 16, at the Fairmont Hotel, San Francisco.

Adjournment.

76th Annual Session
California Medical Association
Los Angeles
April 30—May 3, 1947

For hotel reservations, write Convention Department, Los Angeles Chamber of Commerce, 1151 South Broadway, Los Angeles, Calif.

NEWS and NOTES

NATIONAL • STATE • COUNTY

ALAMEDA

Berkeley Hospital has been renamed **Herrick Memorial Hospital** in honor of LeRoy Francis Herrick, M.D., who founded it in 1904.

FRESNO

Dr. Edwin A. Patterson, Fresno physician and surgeon, has been installed as president of the **Fresno County Medical Association.** He succeeds Dr. Jerome A. Thormann. Other new officers include Dr. Kenneth Leuchauer, first vice president; Dr. William L. Adams, Jr., second vice president; Dr. William Knudsen, secretary-treasurer; Dr. Dwight Trowbridge, librarian.

LOS ANGELES

After three years' overseas service, **Dr. Saul Moss** has resumed his practice as physician and surgeon with new offices at 15200 Ventura Boulevard, Sherman Oaks.

Dr. John P. Nuttall of Santa Monica has been appointed city physician. A former member of the City Health Commission, Dr. Nuttall has taken an active part in medical association activities. He is a past officer of the medical legal committee of the Los Angeles County Medical Association and past president of the Santa Monica branch of the same organization.

Captain E. Crawford May has resigned as president of the Hastings Foundation, Pasadena, and has been succeeded by **Dr. LeRoy B. Sherry,** Pasadena surgeon, who was unanimously elected. Captain May will remain on the board. The Hastings Foundation owns and administers the Hastings Sanitorium, a tuberculosis research center in the Lincoln Avenue foothills.

Cedars of Lebanon Hospital has announced the appointment of **Dr. Trace Jackson Putnam** to its medical staff as chief of neurosurgery. A former professor at Harvard Medical School, Dr. Putnam has been working in neurology and neurological surgery at Columbia Medical and Neurological Institute, New York. He is editor-in-chief of "Archives of Neurology and Psychiatry."

The **Trudeau Society** of Los Angeles, which constitutes the Tuberculosis Section of the Los Angeles County Medical Association, has elected the following officers for the year 1947: President, **Edward Kupka, M.D.;** Vice President, **Joseph L. Robinson, M.D.;** Secretary-Treasurer, **Arthur E. T. Rogers, M.D.**

NAPA

Dr. Theodore K. Miller, medical director of the Napa State Hospital, has announced the addition of several doctors to the institution staff. They are Dr. Maleta Boatman, physician and surgeon from the Langley-Porter Clinic in San Francisco, Dr. Clara L. Hughes, physician and surgeon, and Dr. William Glosson, psychiatrist.

ORANGE

Dr. Russell I. Johnson of Midway City is the new president of the **Orange County Medical Association,** succeeding Dr. John J. Montanus, former head of Orange County Hospital. Other officers elected were: Dr. Milo Tedstrom of Santa Ana, vice president; Dr. L. E. Wilson of Anaheim, secretary-treasurer; Dr. C. C. Violett of Garden Grove, librarian; Dr. A. H. Wightman of Laguna Beach, councilor; Dr. L. F. Whitaker of Huntington Beach, bulletin editor; Dr. Edward Lee Russell of Santa Ana, associate editor.

RIVERSIDE

Members of the Riverside County Medical Association recently attended a meeting to hear a Symposium on "Choice of Surgical Suture and Early Ambulation" at the Community Hospital. Speakers at the meeting were **Dr. Cecil Lord,** who spoke on the absorbable suture; **Dr. Ray B. McCarty,** on the non-absorbable suture; **Dr. Omar W. Wheeler,** on non-absorbable suture wire, and **Dr. Franklin B. Mead** on early ambulation. The California Physicians' Service-Veterans' Administration program was also discussed by **Dr. W. H. Gardenier,** assistant medical director of C.P.S.

SAN DIEGO

Dr. Hugh Allen Frank, a former resident of El Cajon, who recently returned from military service, has become associated with Drs. Morten N. Carlile and George W. Morris at El Cajon. Dr. Frank is a graduate of the University of Chicago.

SAN FRANCISCO

San Francisco's first **curative workshop,** designed to lessen the gap ordinarily existing for disabled persons between the period of treatment and their return to work, is in operation at its new headquarters at 1680 Mission Street. The center is a non-profit organization wherein occupational and physical therapy are correlated with work tolerance and work adjustment programs. It is sponsored by the San Francisco unit of the American Women's Voluntary Services and among those serving on the board are **Dr. Frederick C. Bost** and **Dr. George Johnson,** both of San Francisco. In addition, the center has a medical advisory board which includes the city's leading orthopedists, internists, industrial surgeons, pediatricians, psychiatrist and plastic surgeons.

Appointment of **Dr. Norman Reider** as chief of the Psychiatric Clinic at Mount Zion Hospital in San Francisco has been announced by **Dr. Julius A. Katzive,** director of the hospital. Dr. Reider succeeds the late **Dr. J. S. Kasamin** who organized the clinic in 1939.

The importance of the proposed **Mount Zion Medical Center** was emphasized recently by Dr. Anthony B. Diepenbrock, president of the San Francisco

County Medical Society. It would provide facilities for many future physicians and surgeons who now are forced to go to educational institutions in other states to obtain their training, Dr. Diepenbrock said. The Mount Zion Hospital Appeal Committee recently reported that contributions to the $3,250,000 fund now total about $1,500,000.

Dr. Howard C. Naffziger of San Francisco has been elected to the regents of the American College of Surgeons for the 1947-48 term.

SAN MATEO

A committee of five has been named to formulate a program for the newly organized **Mental Hygiene Society of San Mateo County.** The committee consists of Dr. Logan Gray and Dr. Kenneth Rew of San Mateo, Miss Ruth Melendy, San Carlos school superintendent, Mrs. Kathryn Bell, county child welfare department, and Mrs. Ruth Bevilockaway of San Mateo.

Dr. Vernet H. Heinz has returned to practice at the 329 Primrose Road building, Burlingame, after serving with the Navy during the war.

SANTA CLARA

Two certified anesthetists have joined the permanent staff of the **Palo Alto Hospital.** They are Dr. John Stiles, associate professor of anesthesiology in the Stanford Medical School, and Dr. Malcolm Hawk.

More than 50 pathologists from all over the state met recently on the Stanford campus for the mid-winter **diagnostic conference** of the California Medical Association's **Cancer Commission.** The conference was designed to arouse interest in cancer and to sharpen the diagnostic skill of the pathologist, according to **Dr. David A. Wood** of the Stanford School of Medicine, commission secretary. Twenty difficult cancer cases were discussed.

SUTTER

Dr. Thomas F. Keyes has resigned as Sutter County Physician and has been replaced by Dr. Dudley Grant of Grass Valley.

TULARE

Dr. Frank Guido, Visalia physician and surgeon, was chosen president of the **Tulare County Medical Society** at the annual election meeting in Visalia. He succeeds Dr. George Keiper of Visalia. Other officers chosen were Dr. W. B. Parkinson, Porterville, vice president, and Dr. Debora Pineles, Visalia, secretary-treasurer.

YOLO

Dr. W. D. McCarthy of Oakland met recently with Yolo County directors and physicians to perfect plans for a spring **Cancer Control drive.** Last year more than $4,000 was raised for cancer control in Yolo County.

Dr. J. Homer Woolsey of Woodland has been elected to the board of governors of the American College of Surgeons for the 1947-48 term.

YUBA

Dr. William Vasquez has resigned as Yuba County physician. He plans to enter private practice in Marysville.

GENERAL NEWS

The activities of the **Psychiatric Personnel Placement Service** jointly operated for the past year as an emergency placement program by the American Psychiatric Association and The National Committee for Mental Hygiene, 1790 Broadway, New York 19, New York. Applications from physicians seeking placement in positions or in training in the field of psychiatry are still invited.

Over 900 physicians have registered with the Placement Service since it began operating on December 11, 1945, for the purpose of giving **advice and assistance** to physicians in the armed forces who were interested in obtaining further training or positions in psychiatry on their return to civilian life. It is felt, however, that the emergency placement program has been completed, but that the data relative to training and positions should be kept available to interested physicians. The complete file of **positions and training opportunities** in psychiatry, obtained by the Placement Service through nation-wide surveys of general and state hospitals, private mental hospitals, community and mental hygiene clinics, medical schools, and foundations, will be located in the offices of The National Committee for Mental Hygiene.

One hundred radiologists will be selected to attend the **postgraduate courses in radiology** to be conducted March 30 through April 4 in Philadelphia by the American College of Radiology. Preference will be given to radiologists who served in World War II. Second preference will be given to qualified applicants who were unable to obtain admission to last year's course in Philadelphia. The course is sponsored jointly by the American College of Radiology and the Philadelphia Roentgen Ray Society.

Although national and local scientific societies in the specialty of radiology have maintained a consistently high standard in their regular meetings, numerous inquiries have indicated an obvious need for intensive courses of a more academic nature. Also, **veteran medical officers** have been felt to be in need of an intensive review before returning to private practice. Many of these men were denied the opportunity for normal clinical practice or study which would keep them abreast of the rapid progress in the specialty of radiology.

Some of the **subjects to be studied** are: Certain neoplastic and inflammatory diseases, carcinoma of the head and neck, dosage calculation and tumor sensitivity in radiation therapy, carcinoma of the breast, blood and hemopoetic diseases, carcinoma of the genital and urinary tract, benign and malignant diseases of the skin.

A fellowship for the study of the application of newly developed radioactive isotopes to clinical medicine is offered for 1947 by Permanente Foundation. Announcement of the offer says that an attempt will be made to apply basic investigational study in biophysics to the care of clinic and hospital patients. **Appointments** will be awarded to graduates of Grade A medical schools who have completed an approved interneship. Research fellows receive $225 monthly, plus tuition costs and partial maintenance. **Applications** should be mailed to: Chairman, Fellowship Committee, Permanente Foundation Hospital, 280 MacArthur Boulevard, West, Oakland 11, California.

California Society for Crippled Children will hold its **Easter Seal sale** again this year. Returns from sale of Easter Seals last year showed a 26 per cent increase to $3,420,000, according to W. E. Griffith, executive director of the Society, but "needed services for crippled and spastic children far outrun this amount."

Need for full-time, **active-duty Navy medical officers** and for others for part-time duty with organized reserve units is announced by G. B. Ribble, Captain (MC), U.S.N., staff medical officer of the Naval Air Reserve Training Command. Opportunity for reserve officers to return to active status at **any of 16 major stations** or six training units is set forth in an advertisement by the Air Reserve Training Command. Duty would be in the Naval Air Reserve Training Program which has as its mission the maintenance of combat efficiency of previously trained naval aviators. Openings for active duty are announced at **Oakland,** California; Atlanta; Dallas; Glenview, Illinois; Grosse Ile, Michigan; Memphis; Minneapolis; New Orleans; Olathe, Kansas; Squantum, Mass.; St. Louis; Willow Grave, Pa.; Denver; Jacksonville; Miami; and **Seattle.**

Cooperation of doctors and other community leaders in local and national efforts to **stamp out venereal disease** is asked in a letter sent to physicians by Charles Walter Clarke, M.D., executive director of the American Social Hygiene Association.

Although scientifically America is closer to victory over VD than ever before in history, Dr. Clarke points out that the **VD rates are rising generally,** with the sharpest upturn in the youth group. "It is essential," he says, "that we strengthen protective and preventive measures if we hope to bring down VD rates." To this end, Dr. Clarke asks that physicians get behind a "broad program of community organization and public information" now going forward under the leadership of the American Social Hygiene Association.

INFORMATION

Suggested Program for Development of Blood Bank Services in California*

Blood and plasma banks have been proved essential for efficient, safe, and more economical transfusion services in the practice of medicine. The importance of whole blood over plasma is expressed by the demand for five units of blood to every unit of plasma in the hospitals which are now served by blood banks.

A Summary Concerning the Present Blood Banks in the State:

1. There are 28 blood banks in the state at present. Eleven are located north of a horizontal line through Fresno, and 17 are in the southern part of the state. (See Map I.)

2. Blood banks are divided into three groups: 5 community type banks; 9 county hospital banks; and 14 hospital or private banks.

3. Eighty-four hospitals containing 17,559 beds receive blood and plasma from these banks. This represents less than one-half the general hospital beds in the state, and therefore less than 50 per cent of all general hospital beds are now being served by blood banks.

4. In response to a questionnaire 64 per cent of the hospitals which are without blood bank services said they were in favor of a state-wide program, 26 per cent were undecided, and 10 per cent were not in favor of such a program.

5. In 1945 the 84 general hospitals used about 61,800 units of whole blood or an average of 3.5 units per general hospital bed per year. They also reported having used approximately 7,500 units of plasma. The total needs of the state are estimated to be approximately 140,000 units of whole blood per year on the basis of four units per bed per year, and approximately 28,000 units of plasma per year.

6. A questionnaire to the hospitals which do not share these bank facilities disclosed that the average use of blood is less than one unit per bed per year.

7. Under the spontaneous development of the blood banks in the state the community type of blood bank has been formed in only a few areas. The lack of community blood banks has resulted in an uneven distribution of blood. Northern California with a potential 32 per cent of the population now receives 65 per cent of the total blood from the banks, and Southern California with 48 per cent of the population which might be served has only 35 per cent of the total bank blood. There are three areas without any available banks.

*Excerpts from a report submitted by the State Department of Public Health to the Governor and to the Fifty-seventh Session of the California Legislature Pursuant to Senate Concurrent Resolution No. 57 passed by the 56th Session.

8. At present four of the five community banks are located in the San Francisco Bay area. These four banks serve almost all the hospitals in the area, and they furnish almost as much blood as the remaining 24 banks which are currently operating in the state. (See Table 1.)

9. The standards to which the banks adhere are quite variable. Many practices now carried on are questionable, if not potentially dangerous.

10. The locations, size, and physical equipment of many banks make expansion of their present facilities an impossibility.



Recommendations for the Solution of the Problem:

1. It is recommended that the state be divided into 14 separate blood bank areas approximately as outlined in Map II.

2. It is recommended that there be a local community blood bank in each of these 14 areas.

3. It is recommended that these blood banks be financed and maintained by local funds. The procedure for current financing may vary from bank to bank but experience has shown that the payment of a processing charge by the patient receiving the blood is a feasible method for maintaining the blood bank. Such charges vary from $5 to $10 per unit of blood, depending upon the volume of units handled. Another possible procedure is for the community to finance the bank from donated and/or public funds. The administration and the distribution of blood should be a local function under locally employed personnel. Local, civic and public agencies should cooperate in establishing and maintaining each bank.

4. It is recommended that the State Department of Public Health provide personnel to assist in the establishment of the community blood banks; to integrate the activities of the community blood banks; to serve as consultants and to require the maintenance of high standards in all blood banks in California. In the initial phase of the program such personnel will be one physician, one blood bank technician, and one expert in community organization and public health education.

5. It is recommended that the State Department of Public Health assist financially to the extent of not more than 50 per cent or a maximum limit of $10.000, whichever is less, in the cost of establishing any community blood bank, or in covering the cost of needed expansion of facilities of any existing community bank during any one year.

6. It is recommended that blood fractions be processed, if possible, by commercial biological laboratories under a contract with the State Department of Public Health, or by the State Department of Public Health, and returned for distribution.

7. It is recommended that the California Medical Association, the Association of California Hospitals, the Association of Osteopathic Physicians and Surgeons, the American Red Cross, and other interested state-wide agencies assist the State Department of Public Health in the furtherance of these plans through their constituent state and local organizations.

8. It is recommended that an advisary committee be appointed by the State Board of Public Health to advise in the administration of the program. Such an advisory committee should be composed of representatives from blood banks, physicians and hospital organizations, and other groups which may aid in the development, maintenance and coordination of the program.

9. It is recommended that an appropriation of $75,000 be made to perform the above tasks during the first year.

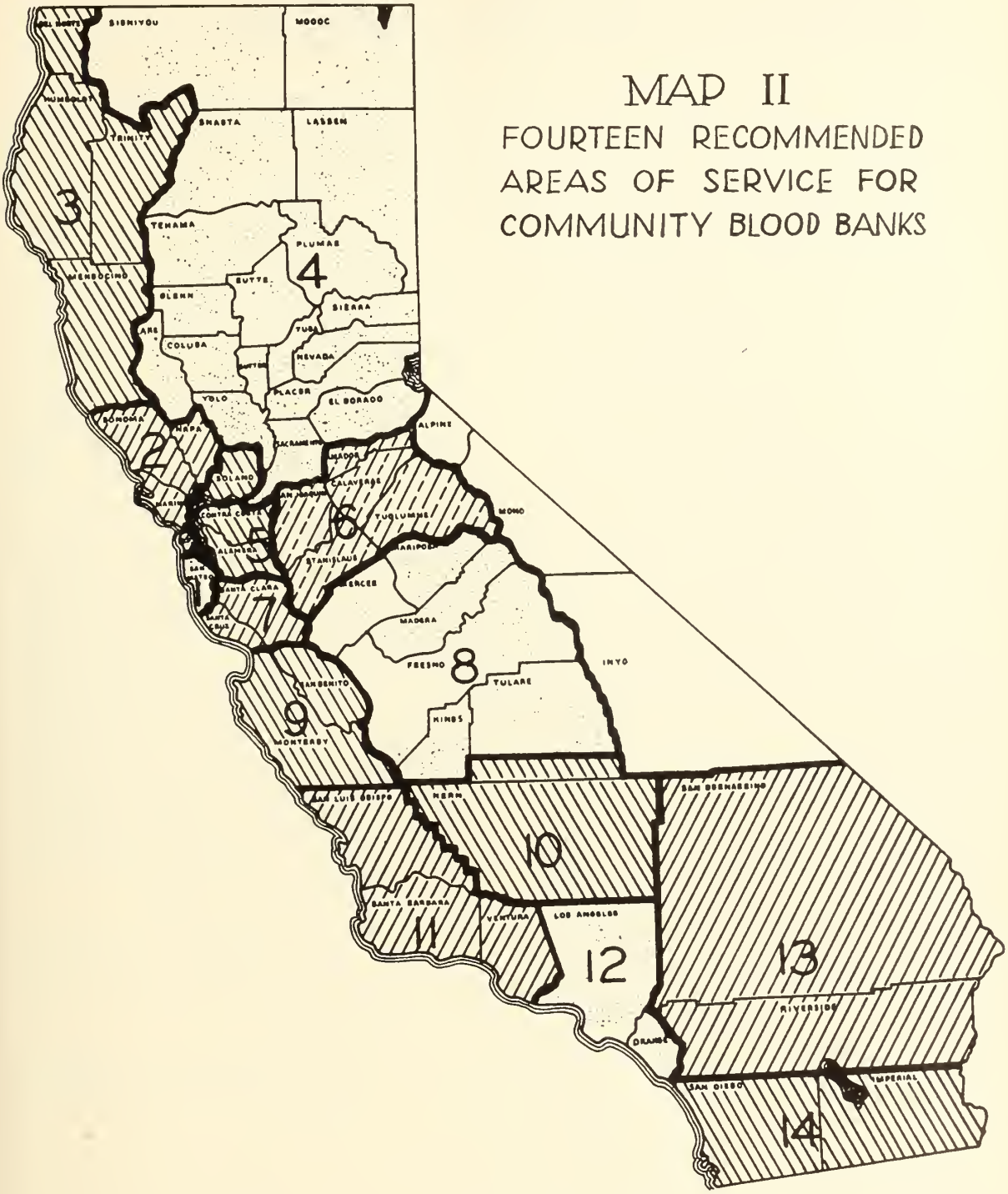
10. As the state-wide blood bank program develops, it may be necessary for the Department of Public Health to participate in the financing of the processing costs for plasma and blood fractions. The details of this part of the program remain to be formulated. Present indications are that the Red Cross surplus of these products will be ample for the next 18 months to two years, and consequently no recommendations on this point can be made at this time.

TABLE 1.—*General Summary of Blood Banks in California*

Type of Bank	No. of Banks	No. of Blood Units Used	No. Banks Making Plasma	No. of Plasma Units Used[2]	Replacement Requirement
Community	5	33,562[1] 28,762	4	3,700	3 (1:1) 2 (0:1)
County hospital	9	14,557	6	2,839	3 (1:1) 6 (2:1)
Laboratory or Hospital	14	13,126	2	972	9 (1:1) 5 (2:1)
Total	28	61,245	12	7,511	15 (1:1) 11 (2:1) 2 (0:1)

Type of Bank	Median Cost Per Unit	No. of Hospitals Cooperating[4]	No. of Beds Supplied[3]	Units of Blood per Bed[3]	Units of Plasma per Bed[3]
Community	$ 7.50	54	6,723	4.9[1] 4.2	 .55
County hospital	0	9	6,518	2.2	.44
Laboratory or Hospital	$15.00	21	3,060	4.3	.32
Total	$ 7.50	84		3.8	.46

1 Based on 1945 reports, Red Cross (1946 estimates) included.
2 Estimated usage included, but not Red Cross or commercial plasma.
3 Does not include tuberculosis beds.
4 1946 data.



MAP II

FOURTEEN RECOMMENDED AREAS OF SERVICE FOR COMMUNITY BLOOD BANKS

Letters to the Editor . . .

RECOVERY FROM A SURELY FATAL DOSE OF EPINEPHRINE

Epinephrine is one of the most commonly used drugs throughout the world, and, when administered by physicians, medication with it is comparatively safe. Ordinarily recovery occurs uneventfully from rather unpleasant and sometimes alarming side-actions. Serious accidents from over-dosage would appear to be uncommon and most are probably never reported. These are more likely to occur with accidental intravenous injection than by other methods of adminisration, but little, if any, attention has been given to possible measures for relieving symptoms.

The dangers are definitely greater with lay persons, especially asthmatics using epinephrine as self-medication with a hypodermic syringe. Besides the 1:1000 solution of epinephrine hydrochloride which is available to the layman for injection there is the 1 per cent solution intended for use in vaporizers. The latter solution might be accidentally injected, or used for injection in case of unavailability of the weaker solution, and would certainly result in severe toxicity, if used in the same dosage. Thanks to the vigilance of the Council on Pharmacy and Chemistry of the American Medical Association and the Federal Food and Drug Administration the marketing of these solutions in this country is controlled by proper labeling with directions for prescriber and user. However, similar matters are poorly or not at all controlled in many other countries where there are available solutions of epinephrine 10 to 20 times stronger than the solution permitted for use as vapor in this country. A serious accident with one such solution was reported some time ago by Möller of Copenhagen. I found the report interesting and instructive, with practical suggestions which I have not seen anywhere before; and the measures seem to be successful.

The report is of the successful treatment of a child who received a surely fatal dose of epinephrine. The principle of the procedure used should be equally valuable in mitigating severe symptoms of accidental poisoning from smaller doses. The essential feature was a prompt and persistent treatment with drugs of the nitrite group. Carbaminoylcholine (doryl), a parasympathotropic stimulant used to restore the autonomic imbalance caused by the sympathetic overstimulation of the epinephrine, was ineffective. A summary of this case, therefore, is of more than passing interest.

A girl 12 years of age, body weight 34 Kg., was given subcutaneously, by accident, 20 mgm. of epinephrine (0.2 cc. of a 10 per cent spray-solution) which was double the known fatal dose for an adult man. Nausea, vomiting and a barely perceptible pulse quickly resulted; marked general paleness with coldness of extremities and increased heart rate and blood pressure were present in 20 minutes, unconsciousness in 40 minutes. Following inhalation of vapors from four ampules of amyl nitrite, consciousness was regained without change in blood pressure and heart rate. From there on, administration of the longer acting members of the nitrite group was pushed during a period of 1 hour and 40 minutes. Nitroglycerin, 3.0 mgm., was given at 1 hour and 15 minutes, then erythrol tetranitrate, 5.0 mgm. by mouth, followed by three doses of 5.0 mgm. each intravenously 10 minutes apart, followed again 15 minutes later by another 5.0 mgm. intravenously, total 25 mgm. of erythrol tetranitrate within 1 hour and 40 minutes after the accident. Three hours and 40 minutes after the epinephrine injection the facial skin was pinkish, but the legs were still cold and pale. Blood pressure was reduced and thirst marked after the third dose of erythrol tetranitrate; sweating was marked after the last dose.

The recovery of this child from twice the surely fatal adult dose of epinephrine is attributed by Möller to the persistent use of these nitrites as peripheral vasodilators, known mutual antagonists of epinephrine. Yet the peripheral vasoconstriction could not have been entirely overcome, since the paleness of the skin persisted. Other vasodilators, i.e., acetylcholine and aminophylline, have been used by others in combating epinephrine accidents, but have less to recommend them than the nitrites. According to Möller, the aim should be to overcome the marked vasoconstriction so as to improve the cerebral circulation and restore consciousness. Möller recommends giving inhalation of amyl nitrite (three drops) vapor as quickly as possible, followed by a large dose (2.0 to 4.0 mgm.) of nitroglycerin by mouth and then erythrol tetranitrate in divided doses of 5.0 mgm., to a total of 20.0 mgm., intravenously, to control the high blood pressure and promote recovery, according to individual requirements. The injection site may also be excised, if necessary.

REFERENCE

Möller, K. O.: Acta Med. Scand., 110:361, 1942, Über die Behandlung der Akuten Adrenalinvergiftung mit Bericht über einen Vergiftungsfall.

Cordially yours,

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BOOK REVIEWS

THE 1946 YEAR BOOK OF GENERAL MEDICINE. Edited by George F. Dick, M.D.; J. Burns Amberson, M.D.; George R. Minot, M.D., S.D., F.R.C.P.; William B. Castle, M.D., S.M.; William D. Stroud, M.D., and George B. Eusterman, M.D. The Year Book Publishers, Chicago. Price $3.75.

This handy pocket-sized volume contains 772 pages with good-sized print. It has a jacket upon which is printed 20 questions, given as a quiz, to stir the interest in the contents on general medicine. This yearly brief summary of important advances has been continuous since 1900.

Various professors of medical specialties have been chosen to edit the several departments of this year book. These departments are divided into (1) Infectious Diseases by George F. Dick, M.D., (2) Diseases of the Chest by J. Burns Amberson, M.D., (3) Diseases of the Blood and Blood Forming Organs; Diseases of the Kidneys, by George R. Minot, M.D., and William B. Castle, M.D., (4) Diseases of the Heart and Blood Vessels by William D. Stroud, M.D., (5) Diseases of the Digestive System and Metabolism by George B. Eusterman, M.D. Brief summaries of important advances in these fields are given. After many of the articles, the editors have commented and thus have brought the subject matter to date. Few charts and plates appear in the volume. A good informal photograph of the late Sir Thomas Lewis appears at the beginning of the Cardiac section.

The various departments have been well reviewed, and included are theoretical and practical discussions on sulfonamides, penicillin, streptomycin, folic acid, insulins, proteins and amino-acids, Rh factors, vitamins, etc., etc. It should be noted that Endocrinological Diseases are not especially reviewed in General Medicine, as a year book on Endocrinology is regularly published.

This review of General Medicine is admirably done. The editors have brought before their readers important new data, and the comments have kept the subjects alive and up-to-date. This review should be an integral part of the working library of both general practitioners and specialists in the field of medicine.

THE EYE MANIFESTATIONS OF INTERNAL DISEASES. By I. S. Tassman, M.D., Associate Professor of Ophthalmology, Graduate School of Medicine, University of Pennsylvania, Philadelphia; Attending Surgeon, Wills Hospital, Philadelphia, Pa. With 243 illustrations including 24 in color. Second Edition. 1946. The C. V. Mosby Company, St. Louis.

This book begins with the worthy presumption that ophthalmology should be considered as a branch of internal medicine and with the worthy purpose of bridging the gap which exists between the ophthalmic and the other medical aspects of internal diseases. It is regrettable that a book planned to fill such a need should be so unsatisfactory. As the book is surveyed it is seen as essentially a textbook on the eye arranged according to internal diseases. The descriptions of internal diseases allegedly follow Meakins' Practice of Medicine but the condensations are done inadequately, so that they give too little either to the internist or to the student of ophthalmology. Collaboration with an internist could have greatly improved this part of the book, which is quite a large part, and given better balance to the whole. In some conditions the eye descriptions are auxillary to those of the constitutional disease; in others the emphasis is reversed.

The index is good and helps equip the book as a compendium for reference, but the bibliography could be more complete and more up to date.

There is considerable emphasis and detail given to minor or rare conditions and too little to certain important and common ones. For instance, the entire subject of hypertension, including malignant hypertension, is covered in less than one and one-half pages of text and one black and white print. Arteriosclerosis is given two and one-half pages. On the other hand five and one-half pages are devoted to toxoplasmic encephalomyelitis.

The color photographs are good, but too few, and are usually wasted at the rate of one small print to a full page. The black and white prints are not uniformly clear. They are present in great number—and not always with apparent reason. Some would be more appropriate in a text on diseases of the skin rather than of the eye. Others are out of place: Fig. 103, a fundus demonstrating tuberous sclerosis, stares from page 236. The discussion of this subject begins on page 240 and is accompanied by two other figures. Meanwhile, the intervening pages are occupied by the text of two other conditions and prints of three. This sort of thing is confusing.

The discussions on treatment do not acknowledge the existence of penicillin, and comment on the sulfonamides is in a fashion better hefitting 1938 than 1946. The comparatively few references to chemotherapy repeatedly recommend sulfanilamide, which, in general, has been discarded in favor of more effective and safer derivatives.

The final criticism is directed to a fault found all too frequently in modern American medical books, the inconstancy of the style and the English grammar.

QUARTERLY REVIEW OF OBSTETRICS AND GYNECOLOGY. Volume 1, 1943, Volume 2, 1944, Volume 3, 1945. Washington Institute of Medicine, 1720 M Street, N.W., Washington, D. C.

This collection of reviews embraces the quarterly publications of the Review of Obstetrics and Gynecology for the years 1943-45, inclusive. The publication is well edited, and the individual reviews convey the content of the various articles with considerable fidelity and without becoming stereotyped. The field seems to be very well covered, and in view of the fact that this covers war years, it is a considerable achievement. As one might expect, the foreign journals are notably lacking, with the exception of those from South America. This deficit will undoubtedly be rectified as the journals from other countries become available.

The publication is well printed; the paper is good and the binding is very satisfactory.

This presentation of the Quarterly Review of Obstetrics and Gynecology forms a valuable addition to any medical library.

SIR W. ARBUTHNOT, His Life and Work. By W. E. Tanner, M.S., F.R.C.S. The Williams and Wilkins Company, Baltimore. 1946. Price $4.50.

This is a rambling anecdotal biography written by a devoted disciple with a somewhat reverential appraisal of an admittedly very clever pioneer in surgery, many of whose contentions concerning intestinal stasis (to which subject he contributed almost a hundred articles) have not stood the test of time nor of more scientific study. However, one cannot but admire and marvel at the many-faceted character of this brilliant though sometimes erratic artist in surgery, whose Lane plates, "non-touch" method of operating for fractures, operation for lateral sinus thromhosis, administration of salt solution during operation, resection of rib for empyema, closure of cleft palate, and total colectomy blazed trails for lesser Galens to follow and later to modify or discard as newer concepts

dominated these fields. The book provides an interesting and important chapter in the history of surgery. As Rudolph Matas well said: "His name will remain permanently inscribed in history as one who made surgery better than he found it."

PENICILLIN, ITS PRACTICAL APPLICATION, under general Editorship of Sir Alexander Fleming, M.B., B.S., F.R.C.P., F.R.C.S., F.R.S., Professor of Bacteriology in the University of London; Discoverer of Penicillin; recipient of the Gold Medal for Medicine and Hygiene and the Cheadle Gold Medal, Clinical Medicine in 1908; awarded the Nobel Prize for Medicine in 1944. Cloth edition, Blakiston Company, Philadelphia, 1946; 380 pages with 59 illustrations. Price $7.00.

This book, as the name implies, attempts to collect all the present knowledge concerning penicillin with the object of applying that knowledge to practical use in the treatment of the patient.

Dr. Fleming is not the author of the book, and he, himself, has contributed only the first chapter, "History and Development of Penicillin." This chapter is interesting, well-written and as an introductory chapter establishes a good basic foundation for the specialized chapters that follow. He has invited a number of outstanding English authorities to contribute articles on the different aspects of penicillin and penicillin therapy. The book, therefore, is not a continuous text, but more of an encyclopedic résumé of our present knowledge.

The book is divided into three sections:

The first section is general and résumés and describes the chemistry and manufacture, the pharmacy, the pharmacology, the bacteriological control of penicillin therapy and the methods of administration. This section is complete, and the student need read no further in order to apply penicillin therapy safely and correctly.

The second section is composed of articles by specialist clinicians detailing the practical use of penicillin to prophylactic use, infections, endocarditis, chest infections, chest surgery, wounds, burns, orthopedics, osteomyelitis, hand infections, abdominal infections, obstetrics and gynecology, sepsis neonatorum, brain and meningeal infections, venereal diseases, ophthalmology, otorhinolaryngology, dermatology, dental and oral infections, and in animal diseases. Each specialist has attempted to cover his entire field with treatment details for each infection or contingency. Each article repeats and emphasizes the general basic rules as set forth in the first section. Each article is complete in itself and useful to anyone who is limiting his practice to a single field. The general principles are the same as are described in the first section. Nothing new is added, except perhaps individual variations in technique and application.

The third section is a short chapter primarily for the general practitioner. The chapter is a résumé of the book, arranged similar to a quick subject reference.

This book is the most complete authentic volume ever published on the subject of penicillin. Deletion of the repetitious material and combining the specialists' articles, would have made this book outstanding. As it is, it is a valuable book for the general practitioner. It should be at hand as a reference volume in all hospitals and labraries.

It is hoped that the revised edition will be smaller, more compact and sell at a lesser cost.

MEDICAL JURISPRUDENCE

MALPRACTICE: DEGREE OF SKILL REQUIRED OF A SURGEON: ACTS CONSTITUTING NEGLIGENCE IN TREATMENT

PEART, BARATY & HASSARD, *San Francisco*

The California District Court of Appeal recently decided a case (76 A.C.A. 658) involving the degree of skill and care necessary for a surgeon to exercise and held that a physician or a surgeon is not liable for every result which may occur in medical practice, but is required only to exercise the degree of learning and skill ordinarily possessed by physicians of good standing practicing in the same locality and to use ordinary care and diligence in applying that learning and skill to the treatment of his patients.

In this case, plaintiff sued defendant for damages alleged to have resulted from malpractice on the part of defendant in the treatment of an injured arm. At the conclusion of plaintiff's case, a motion for a non-suit was granted and the plaintiff appealed therefrom.

The facts of the case upon which the plaintiff based her action for damages were as follows: Plaintiff alleged that on or about January 4, 1944, she received an injury to her right arm and thereafter employed the defendant physician to treat her injuries. Further the plaintiff contended that the defendant physician had carelessly and unskillfully operated on and treated the plaintiff's right arm, and that his negligence was the cause of permanent injury to her right shoulder, right elbow and right hand. Plaintiff alleged that defendant physician had manipulated the plaintiff's arm prior to the time when there was sufficient callous formation in the fractured elbow, and that the defendant physician had forcefully and violently manipulated plaintiff's fractured elbow beyond the point of tolerance.

At the trial there was no evidence that the defendant departed from the routine treatment in the circumstances, and there was no evidence that defendant physician failed to exercise that degree of care and skill customarily used by the profession in and about the locality where the treatment was administered. The District Court of Appeal held that the trial court was not in error when it granted the defendant's motion for a non-suit and again enunciated the rule: "The fact, if it is a fact, that the patient fails to respond to treatment, or that the results of an operation are disappointing, does not necessarily establish as a fact, the failure to exercise that degree of care and skill customarily used by the profession in and about the locality where the treatment is administered."

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Carcinoma of the Stomach*

THOMAS F. MULLEN, M.D., *San Francisco*

CANCER of the stomach poses problems of the greatest importance to all of us because of its high incidence, its rapidly fatal course unless treated in its early stages, and, especially, the general air of pessimism which surrounds the whole subject. It is the spectre at the banquet of our surgical complacency. I have elsewhere stated that doctors might well be divided into two classes: those who are forever suspicious of gastric cancer and never find it and those who are never suspicious of it and forever miss it. The former may be comforted by the fact that they have committed no sin of omission. The latter must bear that odium. It must be a distressing experience to have the diagnosis finally become obvious in a patient who has been treated symptomatically for a long period without having had a careful, searching study made to rule out this serious disease. However, this often occurs, not only adding to the problem that the surgeon is ultimately called upon to answer, but giving rise to unjust criticism of the surgical treatment, which after all is the only known method at present which offers any chance of cure.

That there are instances in which even the most careful search might fail to reveal the lesion is granted, but they are rare. In the great majority the diagnosis could be made much earlier if all of the means at our command were used with skill. The first physician to see the patient is so often the one on whom the fate of the patient rests, for if this physician—be he general practitioner, internist, gastro-enterologist or surgeon—fails to be suspicious of this disease and searching in its detection, we will continue to see late, inoperable, hopeless cases arrive and the pessimism will daily grow. A culpable attitude of pessimism is that which holds that the disease is hopeless from the beginning and, once the diagnosis is made, dismisses the problem with a warning to the patient to prepare to die. This attitude of mind will not admit that anyone was ever cured of gastric cancer by surgery, using the word "cure" in the same fashion that we use it in any other type of malignancy. This in spite of increasing evidence to the contrary. In 1941 The Registry of The American College of Surgeons had 1,249 instances of five-year cures recorded, and there must be many more that have not been mentioned.

That surgery is not the ideal answer is admitted, but not to use it is like refusing to rescue a drowning man because you have to pull him into a rowboat instead of being able to part the waves before him. All surgeons complain that the difficulties come from the extension of the process to regions outside the stomach. As a matter of fact, we usually have to treat the complications of the disease, including involvement of many other structures outside the primary site. If a cancer is treated while still confined to the stomach, the chance of long survival is great, and yet studies on autopsy material have shown that as high as 23 per cent of patients have died before any metastasis had occurred (Warwick). It is obvious that many might have been saved by early operation.

Why is the diagnosis not made earlier? Several reasons occur—the patient's indifference to mild symptoms, the careless or incomplete examination, and reliance upon one negative examination in the face of continuing symptoms. I am convinced that it is dangerous to consider gastric ulcer as anything other than a surgical lesion from the very beginning. The therapeutic test of such an ulcer may be greatly misleading unless it is interpreted with proper reservations. It is not generally understood that it is not possible to differentiate malignant from benign ulcer in a very high percentage of cases, nor is the great incidence of carcinoma appreciated. It remains a fact that the majority of

* Chairman's address, presented as part of a panel discussion on Carcinoma of the Stomach at the Seventy-fifth Annual Session of the California Medical Association, Los Angeles, May 7-10, 1946.

cases reach the surgeon months after the onset of symptoms and sometimes even after years. Many have been treated as benign ulcers or as some form of indigestion without having had the benefit of x-ray or gastroscopic investigation. Such fundamental studies as gastric analysis or a search for the causes of unexplained anemia or asthenia, or for the source of occult blood in the stool are left undone while the patient and the doctor are lulled by temporary, often empirical measures.

The extent of surgical ablation of the stomach and contiguous structures in the treatment of gastric cancer has been stretched to the limit and little more can be expected from technical refinement. It is therefore our duty to continue to press the need of recognizing the disease in its early stage and while it is still susceptible to the only means of cure that we now know—surgical removal. Too frequently, the surgeon, feeling that every patient in whom the diagnosis of cancer of the stomach is made is entitled to operation unless that course is obviously hopeless, is compelled to take heroic measures to overcome advanced disease. Too often he has to decide if he has anything to offer to make easier the final days in a battle that was lost before he entered the field. It is therefore our duty constantly to remind the one who first sees the patient to be eternally suspicious and thorough in his search for gastric cancer in all patients who have mild digestive symptoms.

450 Sutter Street, San Francisco.

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Warwick, M.: Analysis of 176 Cases of Carcinoma of the Stomach Submitted to Autopsy. Ann. Surg., 88:216. 1928.

What Can the Internist Do to Get More Early Cases Of Carcinoma of the Stomach to the Surgeon?*

Clayton D. Mote, M.D., *San Francisco*

A MALE patient, 52 years of age, entered the hospital with the complaint of vomiting for one month, abdominal pain for three months and a weight loss of 25 pounds during the previous six months.

He had been perfectly well until two years before entry into the hospital when he first began to notice some vague epigastric distress following meals and a distaste for certain foods, particularly meat. He noted mild relief of his symptoms for several months with various self-prescribed medications directed to relieve his "acid indigestion," but for a month before entry he had had a great deal of vomiting and abdominal pain. His weight had gradually declined from 175 pounds to 150 pounds.

Physical examination revealed a man showing signs of some recent weight loss. Nothing else of significance was noted until the abdomen was examined. An indefinite mass could be palpated in the epigastrium. The liver edge was easily felt beneath the right costal margin. The liver was slightly larger than usual and the edge felt hard and somewhat lumpy. Digital examination of the rectum revealed a hard, fixed, non-tender mass in the cul-de-sac which was typical of a rectal shelf. A large filling defect involving the lower half of his stomach was seen on x-ray examination, and there was also a moderate degree of pyloric obstruction with some retention of the barium meal. Achlorhydria and low total acid was present on gastric analysis and the fasting content contained occult blood. The diagnosis of carcinoma of the stomach at this stage was relatively obvious, and in the presence of metastases in the peritoneum and liver, the lesion was considered inoperable.

DELAY IN DIAGNOSIS

It is a sad commentary that about one-half of the patients with carcinoma of the stomach when admitted to hospitals in the United States are considered inoperable. Better therapeutic results and a change in the pessimistic viewpoint shared by most of us can hardly be expected while such a situation exists. However, the purpose of this discussion is not what must be done to educate patients so that they seek assistance early in the course of the disease, but rather to emphasize certain factors that will aid the doctor in early recognition of the lesion. The doctor many times is slow in making a diagnosis, and too often several months go by before the gravity of the situation is realized. The diagnosis of carcinoma of the stomach is not always easy and at times the combined efforts of the doctor, radiologist, gastroscopist and surgeon must wait for the last word to come from the pathologist as to whether the lesion is benign or malignant.

The onset of the disease is often abrupt. The symptoms of anorexia and gastric distress make their appearance in a patient who previously had been entirely free of gastro-intestinal symptoms. It is in this group of patients with symptoms that we can hope for earlier recognition of the lesion.

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There is little to offer those patients in whom the first manifestations of the disease are the result of widespread metastases as is sometimes seen in lymphogenous pulmonary spread or in carcinomatosis of the peritoneum.

In some quarters there is a tendency to minimize the value of gastric analysis, perhaps too much. It is quite true that the presence of high or low acid values is not particularly helpful in distinguishing a benign from a malignant ulcer, but on occasions blood may be found in the fasting content when the lesion, because of size or position, is most difficult to demonstrate by x-ray. Further attention then directed to examination of the stomach by x-ray or gastroscopy may be revealing.

EXAMINATION OF STOOL

Examination of the stool for occult blood is a very simple test but one that is at times neglected. The presence of occult blood in the stool is an indication for investigation of the gastro-intestinal tract to determine the source of the bleeding. Malignant disease of the colon, small bowel or stomach may be latent, and occasionally the finding of occult blood in the stool will lead to its discovery. Once an ulcer is demonstrated in the stomach, the question resolves as to whether it is benign or malignant, and from the clinical standpoint there is no infallible rule to make the distinction, at least in the early stages when it is important to do so.

Various clinics throughout the country have more or less arbitrarily established the principle that a gastric ulcer should be observed from three to six weeks after adequate dietary and medical treatment has been instituted. Then if the ulcer remains and does not show appreciable regression in size, surgical intervention is indicated. However, one must not be lulled into a sense of security if the patient responds well to medical and dietary management. Remarkable improvement, with disappearance of symptoms, gain in weight and strength, a feeling of well-being, and an apparent healing of the gastric ulcer, may occur even if the lesion is a carcinoma.

Since numerous studies have shown that the prepyloric area is the location of most gastric carcinomas, one is justified in viewing a pre-pyloric ulcer with great suspicion. Most ulcers of the greater curvature of the stomach are malignant. In fact the finding of a benign ulcer on the greater curvature is so unusual that all ulcers in this location should be considered carcinomatous until proven otherwise.

It will be well to mention the natural course of this disease and to emphasize the fact that often it is extremely chronic and extends over a period of years. Instances where the duration has been 15 to 20 years have been reported and a duration of four to five years is not infrequent. I have in mind one patient who had a large carcinoma of the stomach which was considered inoperable, mainly because of size. Almost two years later the general condition of the patient had not deteriorated and the x-ray picture was identical to that on the first examination. He was then operated on and an extensive resection carried out because of the involvement of both the colon and small bowel by a large carcinoma of the stomach. He died more than three years later of extensive metasteses.

SIZE NOT INDICATIVE OF TENDENCY TO METASTASIZE

It would be well to emphasize that the size of the lesion in the stomach is not a true indication of its tendency to metastasize. Large tumors at times are very slow in their spread while the smallest of tumors may be the primary site from which there are extensive metastases. The size of a chronic gastric ulcer is no true indication of malignancy. However, generally speaking, there is greater chance that the large ulcers are malignant.

The increased incidence of carcinoma of the stomach in patients with pernicious anemia is definitely established. The association of these two diseases is generally recognized. There is likewise a greater incidence of gastric polyps in pernicious anemia. Especial attention should be directed to the stomach in pernicious anemia and patients with this disease should be examined from time to time by x-ray and/or gastroscopy. The increased life span of pernicious anemia patients brought about by liver therapy gives additional time for development of cancer or pre-cancerous lesions in the stomach of these patients. The underlying basic change in the stomach is a hyperplastic atrophic gastritis with metaplasia of the epithelium and a hyperplasia of the mucous glands.

It seems that what we must stress at the present time is, first of all, that carcinoma of the stomach be recognized early and that we should realize that there are many patients in whom the diagnosis could be made at a much earlier stage than is frequently the case. It has been my feeling for a long time that when the surgeon operated on a patient in whom a clinical diagnosis of carcinoma of the stomach could be made with a fair amount of certainty, the prognosis for that patient was definitely poorer than when the ulcer was considered benign, from the clinical standpoint. This has been borne out in recent reports by Allen and his group in which they showed a 20 per cent five-year cure in those patients with a preoperative diagnosis of carcinoma of the stomach and a 40 per cent five-year cure when the preoperative diagnosis was benign ulcer and the malignancy was determined later by microscopic examination.

With the steadily improving results and reduced mortality of gastric resection and the early recognition of carcinoma of the stomach, we can hope that in the future the outlook for this disease will be more encouraging.

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What Does Gastroscopy Offer in the Early Diagnosis of Cancer of the Stomach?*

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To discuss generally the usefulness of gastroscopy in the diagnosis and management of gastric carcinoma would embrace too wide a field, indeed, for a panel discussion. The purpose of this paper is to discuss the value of gastroscopy for the early diagnosis of gastric carcinoma only.

Livingston's and Pack's admirable book on the end-results in the treatment of gastric carcinoma is the best and quite unique source of information about the huge problem as a whole. However, there are two little pessimistic sentences to which I think exception should be taken. They read: "For approximately 75 per cent of patients with the disease surgery offers not the faintest hope for cure. Gastric surgery does not, *nor is it likely in the future*, to prove a satisfactory answer for more than the smallest number of patients." It is to be hoped that this pessimistic attitude for the future will have to be modified.

Formerly, benign ulcer of the stomach was considered to be a precursor of cancer and resection for every benign ulcer of the stomach seemed justified at that time. This opinion recently has been reversed rather completely. In fact, clinical observation has taught us that benign ulcer of the stomach most rarely, if ever, will be transformed into cancer; and a majority of clinicians have become most reluctant in advising early surgery in a disease which so often yields most satisfactorily to internal treatment. Therefore, the necessity has arisen to come to an early and rapid differential diagnosis between the two diseases.

Whenever an ulcer crater of the lesser curvature can be demonstrated, the question immediately arises: Is this ulcer benign or malignant? Waiting is dangerous. The so-called therapeutic test, as will be shown later, is unreliable; precious time may be lost. X-ray—naturally the most important method for the diagnosis—often cannot make this differential diagnosis. The experienced radiologist knows that carcinomatous infiltration and inflammatory swelling around the benign ulcer often cannot be differentiated, and that on the other hand apparent lack of infiltration does not exclude carcinoma. Gastroscopically, however, this differential diagnosis often becomes possible at one glance. Table 1 shows the results of x-ray examination and gas-

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Table 1.—*X-ray and Gastroscopy—91 Cases of Gastric Carcinomas*

A.—Failures.				
X-ray indefinite Gastroscopy wrong 1				
X-ray wrong Gastroscopy indefinite 3				
Both wrong 3 (3.3)%				
	7 (7.7%)			
B.—Correct Diagnosis.				
			X-ray Correct	Gastroscopy Correct
Both methods correct.....56 (61.5%)			56	56
X-ray correct Gastroscopy indefinite		1		
X-ray correct Gastroscopy wrong		1		
Lesions seen by x-ray not seen by gastroscopy..		5		
	7 (7.7%)	7	7	
Gastroscopy correct X-ray indefinite		12 (13.2%)		
Gastroscopy correct X-ray wrong		4		
Lesions seen by gastroscopy—not seen by x-ray..		5		
	21 (23.1%)	21		21
			63 (69.2%)	77 (84.6%)
Correct diagnosis after use of both methods.....84 (92.3%)				

troscopy in 91 cases of gastric carcinoma. The correct diagnosis was missed, more or less, in seven cases by both methods. In 56 cases both methods were equally successful. X-ray was definitely superior in seven additional cases, and gastroscopy permitted a definite diagnosis in 21 additional cases. This surprising result is explained by the line, "gastroscopy correct, x-ray indefinite."

In no fewer than 12 cases, only an indefinite diagnosis could be made at x-ray examination, while the gastroscopic diagnosis was quite definite. All these cases concerned the differential diagnosis between benign and malignant ulcer.



Figure 1.—*Gastroscopic picture of a benign ulcer of the lesser curvature.* At right (between 2 and 3 o'clock) cavity of the antrum is seen limited below by the musculus sphincter antri which contains a mucosal pigment spot. Ulcer is in middle of picture. It is characterized by its sharply cut-out margin. In the gastroscopic view the brilliant yellowish-white floor contrasts sharply with the surrounding orange-red mucosa.



Figure 2.—*Gastroscopic picture of a malignant ulcer of the lesser curvature.* At right is the entrance to the antrum. The ulcer, in the middle of the picture, has no sharp demarcation and is surrounded by stiff nodules.

How is this possible? The surgeon and the pathologist know that in the inspection of the gross specimen they cannot make this differential diagnosis, and ten years ago they used to pat benevolently the back of the gastroscopist and admonish him to desist in his audacious attempts. They know now that at gastroscopy the blood is still circulating and that the color contrasts make the picture vivid and marked as it never can be seen in the gross specimen. Figure 1 shows the typical benign ulcer, its floor being yellowish or whitish, its margin sharply cut out. Figure 2 represents the gastroscopic view of a malignant ulcer. At x-ray examination it would look like the benign ulcer of Figure 1, but at gastroscopic examination the aspect is a totally different one: the edges of the malignant ulcer at gastroscopy are not sharply cut out but blend diffusely with the surrounding mucosa.

The reason for this difference is demonstrated by the microscopic sections of Figures 3 and 4. Figure 3 is a microscopic section through a benign ulcer; Figure 4 is a microscopic section through a malignant ulcer. In both cases the crater would appear alike at the inspection of the gross speci-



Figure 3.—*Microscopic section through the edge of a benign ulcer.* Ulcer crater, at right of picture is sharply demarcated toward the mucosa. This sharp demarcation can be seen at gastroscopic observation because of the marked color difference, but cannot be seen at the inspection of the bloodless gross specimen.



Figure 4.—*Microscopic section through a malignant ulcer.* The carcinomatous tissue of the ulcer crater extends across the edge of crater and undermines gradually the mucosa. This gradual imperceptible transition is readily seen at gastroscopic observation but cannot be observed in the inspection of the bloodless gross specimen.

men and at x-ray examination. However, in the benign ulcer the mucosa ends abruptly at the edge of the crater and this abrupt edge is seen as a sharply cut out margin at gastroscopy. In the malignant ulcer the tumor tissue creeps over the edge of the crater and undermines the mucosa, the edge of the crater still consists of tumor tissue, and this gradual blending is seen gastroscopically.

Figure 5 shows the x-ray picture, the gastroscopic picture and the gross specimen of an ulcer which at x-ray was considered to be malignant. At gastroscopy it was called benign because of its sharp edge, and it was proved to be benign at the microscopic examination of the gross specimen. The deceptive nature of the so-called therapeutic test is demonstrated on Figure 6. The large ulcer niche became rapidly smaller under medical treatment, yet gastroscopy, undertaken at the time of the first x-ray examination, revealed definitely a carcinomatous ulcer, as proved by the blending edge of the ulcer. (See Figure 7.) Operation proved the gastroscopic diagnosis to be correct. Quite a few such cases have been observed, and the so-called therapeutic test should be given up as too slow and unreliable. However, gastroscopy is not

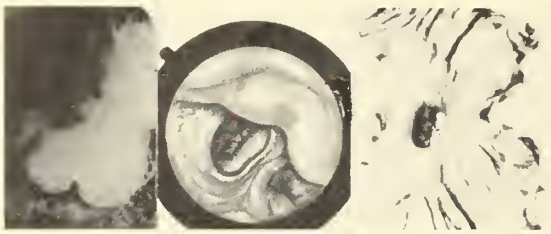


Figure 5.—*X-ray picture, gastroscopic picture and gross specimen of a benign ulcer.* At gastroscopy the benign nature of the deep ulcer was readily recognized because of its sharply cut-out margin.

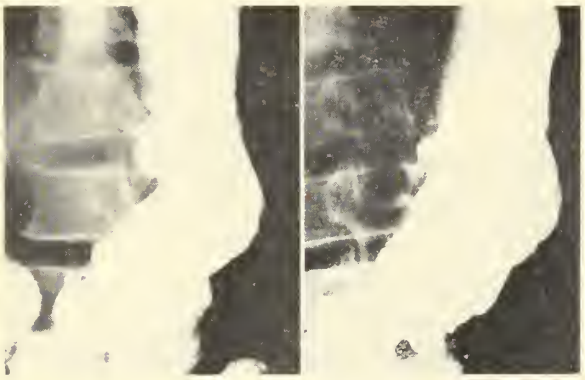


Figure 6.—*Deceptive nature of the so-called therapeutic test.* Under treatment the large niche of the ulcer shown at the left side of the picture became smaller (right side of picture). Nevertheless this ulcer proved to be a malignant ulcer.



Figure 8.—*Polyps of stomach, a precancerous condition.* In the pictured case 25 polypous benign adenomas were observed, one of which had degenerated into a carcinoma. Left side of picture is the gastroscopic view of four of the benign polyps; right side of picture shows a gastroscopic view of the same case; three polyps are seen in the background (between 10 and 12 o'clock); the foreground is occupied by the large polypoid, ulcerated carcinoma.



Figure 7.—*Gastroscopic picture of the ulcer shown in Figure 6.* The carcinomatous nature of the ulcer can be recognized at once because the right side of the ulcer floor (seen between center of picture and 9 o'clock) blends gradually with the surrounding infiltrated nodular mucosa.



Figure 9.—*Gastroscopic picture of the normal posterior wall of the stomach.* Regular complicated fold system. The brilliant orange-red color of the mucosa cannot be shown in the black and white reproduction.

infallible. At least three times I have made the wrong diagnosis of a malignant ulcer because of the exorbitant swelling in the surroundings of the ulcer. To the best of my knowledge the opposite mistake was only made once. Thus the important early differentiation betwen benign and malignant ulcer can be made with an astonishing degree of accuracy at gastroscopy, if the lesion does not lie in one of the well-known blind areas which cannot be seen gastroscopically.

The surgeon must realize now that x-ray examination and gastroscopy have attained such a perfection that lesions may be discovered so small that the palpating finger of the surgeon cannot feel them. In cases of such small lesions the surgeon should undertake resection, if both methods agree, or he should convince himself of the presence of the lesion by taking a look through the gastroscope himself.

There is a new hopeful approach for the finding of such small lesions, namely, discovery and observation of so-called precancerous conditions. Benign small polyps which certainly are a precancerous condition must be watched carefully in order not to overlook their growing and their development into malignancy. Figure 8 shows the gastroscopic picture of some of a total of 25 benign polyps, one of which had become malignant.

Much more important as a precancerous condition, however, is chronic gastritis, especially its atrophic form. Figure 9 shows the normal gastroscopic aspect of the gastric mucosa, which is orange red in color and presents regular folds without visible blood vessels. Figure 10 is the gastroscopic picture of extensive atrophic gastritis. The mucosa is thinned, greenish-gray in color, and submucosal blood vessels are visualized. Recently it has been proved beyond any doubt that gastric carcinoma is much more frequent in patients with pernicious anemia than in other people of the same age group. In pernicious anemia, atrophic gastritis almost always is present. Such cases have been observed carefully clinically and the diagnosis of very small carcinomas has become possible.

The same should be true, in my opinion, in uncomplicated atrophic gastritis. At least one-fourth



Figure 11.—*Gastroscopic picture of a large polypoid carcinoma having developed on the soil of atrophic gastritis.* Curve of the angulus is seen between 2 and 8 o'clock. Behind it (between center and 10 o'clock) the pylorus becomes visible. At bottom of picture, between 7 and 5 o'clock, the fold of the musculus sphincter antri is seen. Above it at right side of picture is the large elevation of the carcinoma.



Figure 10.—*Gastroscopic picture of atrophic gastritis.* The gastric mucosa is thinned, the glands are destroyed so that the large blood vessels of the sub-mucosa become visible; there are no folds. The greenish-gray tinge of the mucosa cannot be shown in the black and white picture.



Figure 12.—*Carcinoma of the stomach developing on the soil of atrophic gastritis.* Same case as Figure 11. Gross specimen.



Figure 13.—*Carcinoma developing on the soil of atrophic gastritis.* Same case as Figures 11 and 12. Photomicrograph of overhanging edge of tumor. At left side the typical picture of atrophic gastritis is seen. Disappearance of glands, interstitial infiltration, appearance of goblet cells; in center of picture there is formation of atypical tubules, from which the tumor (at right side of picture) originates.



Figure 14.—*Small carcinoma of the pylorus found accidentally at routine re-examination of a patient suffering from atrophic gastritis.* X-ray picture; a tiny niche is seen exactly within the pyloric ring.



Figure 15.—*Small carcinoma of the pylorus found accidentally at routine re-examination of a patient suffering from atrophic gastritis.* Gastroscopic picture. The curve of the angulus is seen between 2 and 8 o'clock. The observer looks directly into the antrum. In the center of the picture is the distorted pylorus in which a whitish ulcer is visible. This ulcer was recognized at once as a small carcinoma. The atrophic nature of the mucosa of the antrum cannot be demonstrated in the black and white reproduction.

to one-third of all gastric carcinomas have not a short but a long case history—a case history of rather vague abdominal distress. These patients have been suffering from chronic gastritis. Thus a marvelous new approach to the early diagnosis of very small gastric carcinomas has been found. Atrophic gastritis can be discovered solely by gastroscopy. Once this diagnosis has been made, frequent re-checks by x-ray relief technique, with spot films, and by gastroscopy also, become necessary in order not to overlook the beginning gastric carcinoma which otherwise may grow symptomless for months or even years until it becomes inoperable. The exacting proof for the frequent development of gastric carcinoma from chronic gastritis is still missing, but so many rather convincing cases are observed that the possibility cannot be denied any longer.

Figures 11, 12 and 13 concern a patient who had suffered for 20 years from recurrent epigastric distress. After a gallbladder operation, histamine-proved anacidity pointing to atrophic gastritis had been observed for eight years. Then a small filling defect appeared and it was at first interpreted as a spasm. Gastroscopic examination (Figure 11) revealed a polypoid carcinoma lying in a distinctly atrophic mucosa. A resection was carried out. Figure 12 is a photograph of the gross specimen and Figure 13 a microscopic section through the edge of the tumor which shows distinctly the slow transition from the atrophic mucosa into the tumor tissue. A ten-year cure was obtained.

Figures 14, 15, 16 and 17 concern a patient who had been treated for atrophic gastritis. After a year, routine x-ray examination showed a tiny niche of the pylorus (Figure 14). At gastroscopy (Figure 15) a small, irregular ulcer within the pylorus was seen and the definite diagnosis of a very small pyloric carcinoma, together with atrophic gastritis, was made. The surgeon unfortunately was not able to feel the tiny lesion. He therefore made only a small resection instead of a subtotal gastrectomy, and the patient died two years later from metastases. Figure 16 is a microscopic section through the carcinoma. It is the smallest one I have ever seen, measuring 8 x 8 x 2mm.



Figure 17.—Same case as Figures 14, 15 and 16. Photomicrograph of the antrum mucosa showing severe atrophic gastritis. All glands are destroyed; only residues of pits are left; there is interstitial infiltration and metaplasia of the epithelium of the surface and of the pits into an intestinal type of epithelium with many goblet cells.



Figure 18.—*Carcinoma of the upper posterior wall of the stomach found accidentally at gastroscopy only at the routine check of a patient suffering from pernicious anemia and atrophic gastritis.* Gastroscopic picture. Tumor wall with ulceration at the right side.



Figure 16.—Same case as Figures 14 and 15. Photomicrograph of ulcer floor. Small mucosal carcinoma. Its deepest penetration is indicated by an arrow. The carcinomatous tissue measured only 8 x 8 x 2mm.

Figure 17 shows the atrophic mucosa on the soil of which the carcinoma had developed.

The last case is pictured in Figures 18 to 21. The patient had pernicious anemia. At a regular re-check nothing was found at x-ray examination. At gastroscopy the thoroughly atrophic mucosa was seen and in the midportion of the posterior wall a carcinomatous ulcer was found (Figure 18). Figure 19 is a photograph of the gross specimen. The microscopic section of Figure 20 shows a well differentiated adenocarcinoma and Figure 21 is a photomicrograph of the severe atrophic gastritis of pernicious anemia on the soil of which this carcinoma had developed also.

Gastroscopy should lead to the frequent discovery of the precancerous conditions of polyps and of atrophic gastritis, and their careful observation should permit early discovery of very small symptomless carcinomas and, thereby, a substantial improvement in the prognosis of this disease.

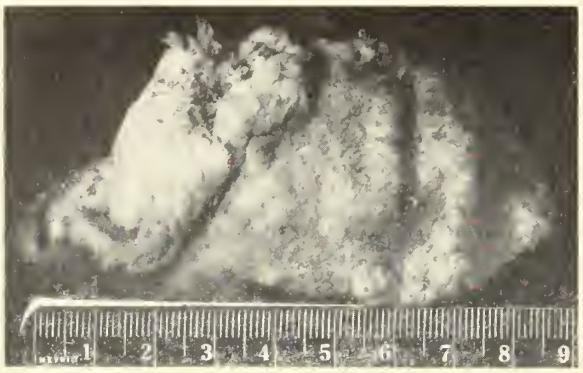


Figure 19.—Same case as Figure 18. Gross specimen. The tumor wall and ulcer corresponding with the one seen at gastroscopy is seen now lying in lower right corner of the picture.

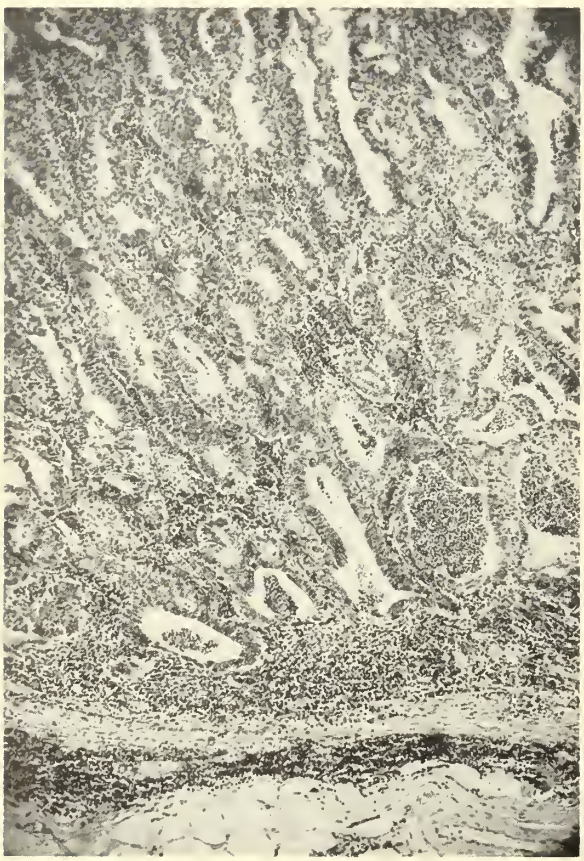


Figure 20.—Same case as Figures 18 and 19. Photomicrograph of the tumor showing a typical adenocarcinoma.

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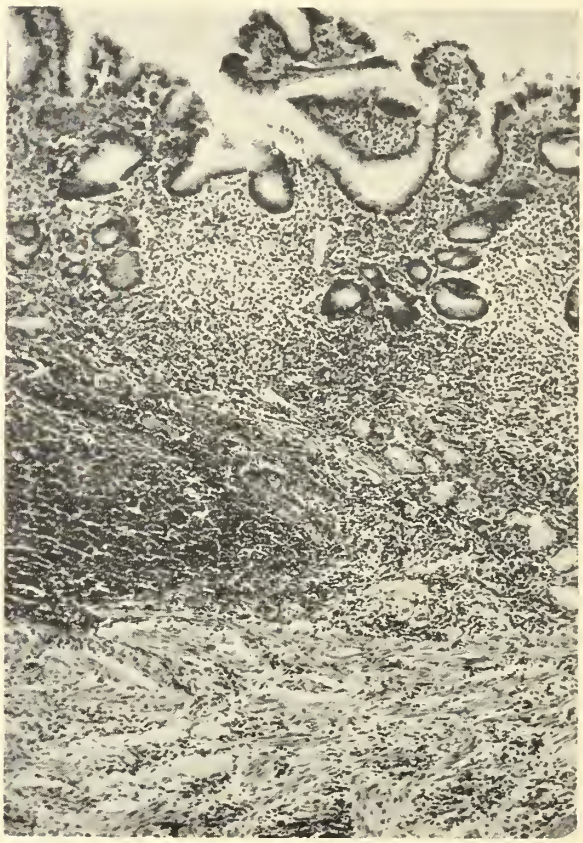


Figure 21.—Same case as Figures 18, 19 and 20. Photomicrograph of gastric mucosa. Severe atrophic gastritis. The glands are completely destroyed. Enormous interstitial infiltration. At the left side a much enlarged lymph follicle. Muscularis mucosae thickened, split-up and infiltrated.

Problems in the X-Ray Diagnosis of Early Cancer*

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THE roentgenologist and the internist cannot view with complacency the fact that 75 per cent of patients with gastric cancer come to the surgeon too late for successful operation. There are several reasons for this.

First, the growth may be in a silent area of the stomach, remaining asymptomatic until the lesion has reached an inoperable stage.

Second, the cancer may be of such a malignant nature that it spreads very early to the neighboring lymph nodes and organs.

Third, delay in diagnosis due to the difficulties involved in differentiating between benign and malignant lesions of the stomach. This is especially true in those borderline cases in which the final expression of opinion should be in the hands of the tissue pathologist. The surgeon, the internist and, above all, the roentgenologist should remember the fact that the x-ray has no microscopic attachment.

The roentgen findings in carcinoma of the stomach are (1) the filling defect, (2) the palpable mass, (3) absence of peristalsis in the area of involvement, (4) lack of normal flexibility of the stomach wall, (5) alteration from normal in the stomach mucosa, and (6) disturbances in the motility of barium through the stomach.

The roentgen diagnosis of operable cancer simply means that the lesion probably is resectable. This is determined by the extent of the growth and its location, also by the mobility or fixation of the mass. The latter usually indicates its extension beyond the stomach wall. The presence of intra-abdominal metastasis cannot be determined by the roentgenologist.

Persistence on the part of the roentgenologist is important, especially in the presence of suspicious clinical symptoms and a final roentgen diagnosis of normal stomach should never be made until repeated studies have been done.

In the event of doubtful or indeterminate roentgen findings, and even with negative findings, in suspicious cases the stomach should be inspected by a gastroscopist.

Of major importance in this discussion are those cases in which the cancerous lesion develops on a previously diseased mucous membrane. Usually in these cases the patient has had gastric complaints for some time before the cancer has developed and in some of the cases the lesion may remain localized for several months or even years.

There are three separate groups of clinical entities on the soil of which cancer develops: (1) gastritis, (2) polyps, and (3) gastric ulcer.

1. *Gastritis.* It is in this group of cases that gastroscopy is of fundamental importance and the roentgen findings of little significance unless a fairly advanced cancer is present. Roentgen studies may show thickening of the gastric rugae with deposits of islands of barium, varying in size and shape. Roentgen evidence of stiffening of the stomach wall and absence of peristalsis in the area of involvement indicate probable malignancy.

2. *Polyps.* There are two types of polyps: The congenital and the acquired. The congenital may be single or multiple and pedunculated. They appear on the x-ray film as negative circular shadows. Of greater importance from the standpoint of the development of cancer is the acquired type of polyp which originates on the basis of gastritis. Gastroscopy and biopsy are the conclusive diagnostic methods in these cases.

3. *Gastric Ulcer.* Two types of malignant gastric lesions may masquerade as chronic benign ulcer. One is the small ulcerating carcinoma, and the other the carcinomatous ulcer. The latter is an ulcer with no evidence of tumor formation seen on the x-ray but which, on microscopic examination, proves to be a cancer. If the niche of the ulcer is large, if there is an absence of peristalsis and the adjacent rugae are obliterated, or if the margins of the niche have an irregular profile, the roentgenologist must consider the lesion as potentially malignant. In these cases the radiologist will express an opinion only on the physical characteristics of the lesion.

In ulcerating carcinoma, the cavity produced by the ulceration is within the confines of the gastric lumen. If the meniscus sign as described by Corman can be demonstrated, the lesion in most cases proves to be malignant.

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Recent Advances in Surgical Treatment of Cancer Of the Upper End of the Stomach*

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THE surgical treatment of lesions of the cardiac end of the stomach and lower esophagus has been simplified and improved by the use of the transthoracic approach to these lesions. In this procedure the chest is entered through the left eighth interspace and the abdominal cavity is opened by incising the diaphragm above the esophagus. This incision is then carried down to the esophagus, and the stomach and lower esophagus are then freed and resected as indicated and a direct anastomosis performed between the esophagus and the distal portion of the stomach, which is pulled up into the thorax for this purpose.

Technically, the operation has proved feasible and does not involve too great a risk. The blood supply of the esophagus has proved ample to assure the healing of the anastomosis and the near term post-operative results have been excellent. In our own experience, the time elapsed and the small number of cases done does not enable us to draw any further conclusions.

This particular operation was first done successfully in one stage by Adams and Phemister in 1937. Since this time a number of authors have reported on the results of this operation. A number of small series have been recorded, and recently Sweet reviewed 127 cases in which the transthoracic approach was used. In 85 patients the lesion was in the stomach or lower esophagus. A resection was done in 61 patients; 24 cases were inoperable. The mortality was 19.5 per cent. Of the patients who survived, only three are alive and well three or more years post-operatively. Nevertheless, Sweet states that if after radical surgery the patient is relieved of his obstruction and can swallow again satisfactorily, if only for six months to one year, the operation should be considered worthwhile. We agree with this statement.

At Stanford University Hospital we have operated upon 16 patients with carcinoma of the esophagus and stomach by means of this approach. In nine patients a successful resection and anastomosis was done. Seven patients had inoperable lesions, but freeing the diaphragm around the growth enabled these patients to eat for a time following operation, which they had been unable to do previously. There were no hospital deaths in these 16 cases. One suspected case of carcinoma, which proved to be inflammatory, was resected. This patient died of a cardiovascular accident the day after operation and this was the only hospital death in the entire series of transthoracic operations. The transthoracic approach was used in five additional patients with benign esophageal lesions.

In four patients with megesophagus, a successful esophagogastrostomy was performed. We have used the transthoracic approach for malignant and benign lesions in 22 cases.

DEVELOPMENT OF THE OPERATION

The development and success of the operation are the result of three lines of effort. First and foremost has been the painstaking investigative and practical work over many years of the surgeons primarily interested in thoracic surgery. As long ago as 1871, Billroth demonstrated in animal experiments the feasibility of resection of the esophagus. In 1905 Sauerbruch performed experiments on cadavers consisting of transthoracic resection of the esophagus and its invagination into the stomach. Torek performed the first successful esophageal resection with indirect restoration of continuity. A long list of surgeons added their contributions in this field leading up to Adam's and Phemister's first successful one-stage resection with restoration of direct continuity between the esophagus and stomach in 1937. Since this time, the operation has been accepted rapidly as a standard procedure and many surgeons have reported their experiences with it. Among them are Ochsner and DeBakey, Garlock, Stephens, Sweet, Kay, Dorsey, Churchill and Clagett.

Coincident with the development of thoracic surgery and contributing largely to its present success has been the development of the art of anesthesia. Beginning with complicated and expensive positive pressure chambers up to the present simple method of intratracheal anesthesia, the anesthetists have simplified the problems of thoracic surgery and greatly lessened its complications. Beecher states that the transthoracic approach to upper abdominal lesions may produce, in fact, no more shock and perhaps even less than the trans-abdominal wall approach.

Finally, the introduction of newer forms of chemotherapy, notably the sulfa drugs and penicillin, in the last few years have greatly reduced the hazard of infection.

PREOPERATIVE CARE

As the patients are usually elderly and greatly undernourished, everything possible is done to improve their general physical state before operation. Blood transfusions and appropriate intravenous fluids are given, as well as vitamins. Sulfadiazine and penicillin are administered before surgery. It

* Presented as part of a panel discussion on Carcinoma of the Stomach at the Seventy-fifth Annual Session of the California Medical Association, Los Angeles, May 7-10, 1946.

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is important to wash and cleanse the esophagus thoroughly before operation.

OPERATION

The left pleural cavity is opened in the eighth or ninth interspace. The phrenic nerve is pinched to paralyze temporarily the diaphragm, and the latter is incised in its tendinous portion above the esophagus. The stomach is mobilized in the usual manner and this procedure is continued up the esophagus for a distance sufficient to get well above the growth. Mobilization of the stomach, and if necessary the duodenum, is an essential technical step in the operation, so that the distal portion of the stomach can be drawn into the thorax without tension for anastomosis with the esophagus. The anastomosis is made with chromic catgut and interrupted silk sutures. The cut end of the stomach is first closed and an end to side anastomosis is made between the esophagus and the fundus of the stomach. The incision in the diaphragm is closed around the remaining stomach, and the latter is fixed to the cut edges of the diaphragm with interrupted silk sutures. Fifty-thousand units of penicillin in 50 cc. of saline is left in the pleural cavity. A mushroom catheter is brought out in the tenth interspace and the wound closed.

POSTOPERATIVE CARE

Sulfadiazine and penicillin are continued as long as it appears necessary. The catheter is removed in 48 hours. The Levine tube is removed about the fifth day. The majority of patients have had a remarkably smooth convalescence. Pleural effusion, which disappeared after one or two tappings, appeared in a few cases. The patients are gotten out of bed early and they begin taking liquids by mouth 24 hours after the Levine tube is removed. Semi-solids and solid foods are added as tolerated, and none of our patients have had any difficulty in swallowing during their convalesence. There were no hospital deaths in the patients operated upon for carcinoma.

Of the nine patients in whom a carcinomatous lesion was resected, two died after a period of relief from symptoms: one in nine months and another in one and one-half years. A third was known to have metastasis six months after operation and has not been heard from since. He is presumed dead. Six patients are living after periods of one or two months to two years. All the patients in whom an inoperable lesion was found have had considerable temporary relief from their dysphagia.

This report and review of the results as given in the literature is not a hopeful one so far as ultimate cure is concerned. Nevertheless, the operation does furnish temporary relief for a varying period of time and offers the only present chance for cure in a previously hopeless condition.

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Radical Surgical Treatment of Gastric Cancer*

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THE greatest margin for error in reporting end-results for the treatment of gastric cancer may be found in the classification by the reporter of any given cancer of the stomach as operable or inoperable. The difficulty in correcting this fault is apparant when one realizes that three variable factors interplay in the pronouncement of any cancer of the stomach as inoperable by any given surgeon: *viz.*, first, the condition of the patient as regards his age, the coexistence of degenerative diseases and the complications attendant on the presence of the cancer; second, the extent of the disease, meaning the degree of involvement of the stomach, the extension to and incorporation of neighboring viscera by the cancer and metastases to regional and distal sites; third, the surgical philosophy, moral point of view, courage and experience of the surgeon.

In the large group of patients found to have generalized metastases or diffuse involvement of the liver and peritoneal lining, the recognition and acceptance of inoperability is obvious to any physician, but there are too numerous other instances in which the definition of inoperability may be subjected to careful evalnation, criticism and even condemnation.

THE POINT OF VIEW OF THE SURGEON

It is not our purpose to formulate a set of rules governing the behavior of any surgeon in a given circumstance, but rather to present just arguments for extending the scope of operability for gastric cancer. The very nature of this disease, the infirm and often aged paticnts in whom it so frequently develops, the radical character of the operations designed to combat it, all conspire to make the surgical treatment of gastric cancer a hazardous venture for the patient and often an ordeal for the surgeon. With a knowledge of the inevitability of death from cancer of the stomach that is not treated, it seems unnecessary to state that no surgeon would refuse a patient the slightest chance for cure or even relief because of a fear of criticism for failure or an unnatural pride in low figures for operative mortality. Nor should any surgeon attempt to play God and decide arbitrarily that a certain patient with gastric cancer had lived a sufficiently long life or that he had so few remaining years of even normal life expectancy that operation at best would hardly be worthwhile. We must take care, in our weighty decisions concerning the denial or offering of a chance for life to a patient, that in our desire not to be the executioner we do not achieve the same end-result by acting as an immoral judge.

About a decade ago Doctor Edward M. Livingston and I brought together for analysis and review the great body of published data on the treatment of carcinoma of the stomach recorded in the half century that had elapsed since the first successful resection by Billroth. For this purpose more than one thousand publications dealing with the subject were submitted to critical study. These represented as nearly as could be readily ascertained, a virtually complete list of the recorded gastric resections from the world literature. Proper deductions, as drawn from this material, therefore, offered the most reliable conclusions possible to obtain up to that date.

At that time answers were sought to a number of specific queries which naturally arose: What was the life expectancy for patients with untreated gastric cancer? What proportion of those having the disease were given an extension of life by medical, radiological or surgical care? What is the nature of a definitive cure? Was there evidence concerning the nature and tempo of progress during that time? Upon what factors was this progress dependent? What accounted for the failure to bring the benefits of excisional surgery to larger numbers? And to these might be added the further question: Was there reasonable hope, from facts and methods now known, of obtaining in the immediate future any materially larger number of definitive cures?

BASIS FOR STUDY OF END-RESULTS

Any study of end-results in the treatment of gastric cancer in terms of attained long-term definitive cures resolves itself into an analysis of surgical methods and their value. For such a study it was essential to determine three points: 1. The applicability of excisional surgery or the percentage of the total number afflicted with the disease for whom extirpation is feasible: 2. The risks involved in efforts to remove the carcinoma: and, 3. The effectiveness of gastrectomy when this can be successfully performed. These points correspond to three questions for which the patient with the disease urgently seeks an answer: 1. "Can the tumor be removed?" 2. "How much danger is involved in an attempt at its removal?" 3. "How certain will be the cure if I assume these risks and undergo the operation?" Decision as to advisability of attempting a gastrectomy in a specific case must hinge in large measure from these points; and the interpretation of the complete significance of the reported end-results is dependent upon them.

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The conclusions drawn from this study may be summarized here as representative of the conditions surrounding the diagnosis and treatment of gastric cancer in the United States a decade ago. This data is presented in order to draw a proper comparison with the progress that has been made in the succeeding ten years.

1. The average patient with untreated gastric cancer was dead within 12 months after the onset of symptoms or was dead within four months after discharge from the hospital.

2. Neither the size of the gastric neoplasm as revealed by clinical or radiological study nor the lapse of time since the onset of symptoms offered a reliable guide for an estimation as to operability, for the reason that bulky adenocarcinomas which fill a large portion of the gastric lumen, or slow-growing prepyloric tumors which have caused symptoms over relatively long periods, alike may offer an excellent prospect of long-term cure.

3. A satisfactory formula for the appreciation of attained cures of gastric cancer may be applied to any group of patients seen in any hospital or clinic as follows: Cures equal the total number of patients observed, minus the number of patients found to have inoperable gastric cancers, minus the number of patients operated on but found to have unresectable gastric cancers, minus the operative mortality or number of patients dying after resection of the cancer and minus the number of patients dying in the three-, five- and ten-year postoperative periods after which definitive cures become possible. The number and size of each of these loss factors precluded in 1936, and apparently for some time in the future, the attainment of large percentages of long-term cures from *all patients* seen.

4. It was apparent from the relations of this cure formula that cancer of the stomach was not exclusively a surgical disease, for the role in deciding for or against operation was shared with the medical attendant, the radiologist and others. The role of the medical attendant may exceed that of the surgeon in practical significance, since the hospital service with high rates of operability will obtain more resultant cures with even inferior grades of surgery than will a hospital service with low rates of operability, no matter how excellent the surgical associates.

5. Resectability or non-resectability is often ascertained with complete certainty only through surgical exploration. Laparotomy is here to be viewed as but a form of internal palpation; thus the resultant cure should not be measured solely against the total number of operations performed, for these include the management of a large number of surgically non-curable types of the disease.

6. To perform a gastro-enterostomy or other temporizing or palliative procedure for a resectable gastric cancer is unwarranted because no author had reported (by 1936) an average extension of life from gastro-enterostomy of more than two months and the operative mortality for gastro-enterostomy for cancer was as great as the operative mortality for attempted resection of a malignant tumor of the stomach. The life lost from immediate death following gastro-enterostomy for cancer exceeded the total life extension gained among survivors, and any advantages of palliative gastro-enterostomy were not to be measured in terms of life extension but in terms of symptomatic relief alone.

7. The cure formula for resectable gastric cancer is: cures equal resections performed, minus operative mortality, minus natural rate of post-resection decline in survivors. It was noted that the patient with resectable gastric cancer had two hazards: the resection risk and the post-resection death rate from recurrence or natural death. The former hazard was under surgical control while the latter rested largely in the hands of nature and could be but little influenced.

8. Responsibility for establishing proper conditions for gastric cancer surgery is largely an institutional problem; it is an ethical principle that institutions admitting patients with this disease in numbers should provide for their concentration in proper surgical hands, allow for the use of special surgical teams, and furnish the necessary special equipment.

9. No surgeon who is unqualified, or who has not the full intent to resect a gastric carcinoma if a resectable tumor is encountered, has the moral right to operate on a patient with gastric carcinoma.

10. Resectable gastric cancer is a numerically common condition, for necropsies have revealed that even at the time of death from gastric cancer approximately one-fourth of these tumors were still confined to the stomach or to the stomach and immediately adjacent lymph nodes.

11. The operability rate may be referred to as the hospital or community index, while the resectability rate may be referred to as the surgical index. These two indices either alone or in combination define the resultant cures attained and a low index in either case will identify the cause of a low rate of resultant cures and reveal whether the medical or the surgical standards should be held accountable.

12. In 1936 it was estimated that from two-thirds to three-fourths of gastric cancers were unresectable from the time when first seen at the hospital or clinic. For approximately 60 to 75 per cent of patients with this disease, surgery offered not the faintest hope for cure.

13. With only three exceptions, no American clinic in the historical range of surgical therapy until 1936 had ever reported more than a total of 100 gastrectomies for cancer.

14. Except where gastric resections were performed by specially trained surgeons or surgical teams working under ideal conditions, the operative mortality was excessive and definitive cures proved numerically few. The resection mortality before 1936 in surgical centers performing large numbers of gastrectomies for cancer averaged 17 per cent while that for the casual surgeon or in

clinics reporting small numbers of resections was found to average approximately 30 per cent.

15. Where malignant tumors were still confined to the stomach at the time of gastrectomy, the five-year cures reached as high as 50 per cent of all patients upon whom resection was performed.

16. At no time in surgical history up to 1936 and at no point in the world had the definitive cures of gastric cancer ever exceeded 5 per cent of the total number of patients with the disease.

17. Approximately one-third of the immediate survivors of gastric resection for cancer were alive at the end of three years; one-fourth were living at five years; one-fifth living beyond ten years from the time of hospital discharge.

18. The percentage of long-term cures for resectable cancer equaled or exceeded that obtained in the treatment of cancers of the tongue, cheek, tonsils, thyroid, brain, lung, esophagus, intestines, gall bladder, liver, prostate, ovary, and many other varieties of malignant neoplastic diseases.

CULPABILITY FOR DELAY

In another statistical study published ten years ago Dr. James S. Gallo and I revealed that in a thousand patients with cancer, the culpability for delay in establishing early diagnosis and instituting early and appropriate treatment, was the fault of the patient in two-thirds of the instances, but the fault of the physician first consulted in the other third. It was mandatory at that time that the educational efforts should be directed not only toward the layman who was entering the age at which gastric cancer might occur, but also to the general practitioner who usually encounters the patient at the time of the first complaint of indigestion.

In an effort to detect early gastric cancers even before symptoms become apparent, several studies have been made in the form of elective radiographic examinations of stomachs of apparently well people in the cancer-bearing age. Dr. Fordyce B. St. John and associates found three unsuspected gastric cancers in a consecutive series of 2,400 such x-ray examinations. As an effort to increase the salvage of patients with this disease one might compare the possibilities offered by an increase in the radical nature of gastric surgery which has occurred largely through the same decade. For example, cancers of the gastric cardia which were formerly considered inoperable because of their location in the stomach, may now be removed either by total gastrectomy via the abdominal route or by transthoracic, transdiaphragmatic cardiectomy with an intrathoracic esophago-gastrostomy. If these procedures were routinely done for patients with cancers in the gastric cardia it would offer 150 out of 2,400 patients with the disease an opportunity, at least, for cure.

REASONS FOR IMPROVEMENT IN END-RESULTS

The great improvement in end-results in the treatment of gastric cancer which has occurred during the past decade cannot be attributed to any studies dealing with the etiology of the disease. The betterment may be attributed to four factors, namely:

1. An improvement in the earlier diagnosis of gastric cancer due to increased alertness on the part of the public through education on cancer and through better medical facilities for the recognition of the disease in the patient.

2. A greatly increased number of surgeons in the United States are now qualified to perform the usual subtotal gastrectomy for cancer, in consequence of which the operation has much wider employment with the extension of the possibilities of cure to many more people.

3. The patient has been made infinitely safer for the surgical treatment of gastric cancer by improvements in pre-operative and post-operative care. Metabolic deficiencies existent in the patient with gastric cancer, such as impairment of liver functions, disturbances in the fluid and electrolyte balance and the almost constant hypoproteinemia with the many complications which follow this condition, are now generally recognized and the means of treating them are readily available and understood. Chemotherapeutic measures have been responsible for the lessening of complicating infections. Wound disruption is an extremely rare occurrence and early ambulation of the patient lessons the mortality from such complications as pneumonia, thrombosis, embolism and cardiovascular collapse.

4. The extension of radical surgery in the treatment of gastric cancer has increased the scope or possibility of cure for many additional patients. The evolution of these surgical techniques has taken place largely in the past decade. Extension of radical surgical treatment of gastric cancer has progressed in three ways:

(A) By the bold sacrifice of adjoining or contiguous viscera that may be involved by the gastric cancer. For example, in addition to the gastrectomy, segments of the left lobe of the liver, pancreas, the spleen and the transverse colon are frequently removed. These adjacent organs are sometimes so intimately adherent to the cancerous segment of the stomach as not to be separated from them by dissection: a removal with the diseased segment of the stomach increases the possibilities for cure.

(B) The removal of the entire stomach if the cancer involves the major part of the organ or has metastasized to lymph nodes extending along either the lesser or greater curvature of the stomach to such an extent that a wide margin of excision cannot be done safely with preservation of any portion of the organ.

(C) For those cancers of the gastric cardia that involve the abdominal esophagus or extend into the thoracic esophagus, the surgeon may extend an abdominal incision intercostally into the thoracic cavity and by transsecting the diaphragm convert the thorax and abdomen into a single cavity in which the resection of the esophagus and stomach

may be performed with reconstruction of gastro-intestinal continuity by an intrathoracic anastomosis.

TOTAL GASTRECTOMIES FOR CANCER

In the Gastric Service at the Memorial Hospital we have performed approximately 50 total gastrectomies for cancer. The operation includes a removal not only of the entire stomach, but of the adjacent lymph node-bearing regions as well, which includes all the lymph nodes along the lesser and greater curvatures of the stomach, the greater omentum in its entirety, the parapyloric and retropyloric lymph nodes as well. In some instances the peritoneum of the lesser omental bursa is stripped off with the specimen. The duodenal stump is closed and the abdominal esophagus, after mobilization, is used for anastomosis to a loop of jejunum. The jejunal loop is brought up either in front of the colon or through the mesocolon to effect an end-to-side anastomosis with the esophageal stoma. The anastomosis is fortified by suturing a flap of diaphragmatic peritoneum anteriorly and posteriorly below the suture line in order to suspend the jejunum and to give additional strength to the anastomosis. A lateral anastomosis or entero-enterostomy is done in order to provide a short-circuiting of the bile and pancreatic juice between the proximal and distal jejunal limbs and in order to provide a suitable egress for any food when swallowed which enters the proximal jejunal limb.

The operative mortality for total gastrectomy is 20 to 30 per cent as compared with 8 to 12 per cent for subtotal gastrectomy. The chief complications of the operation have been of pulmonary origin rather than infections in the peritoneal cavity. These patients have certain metabolic deficiencies during the post-operative state but this has not been a great handicap to the individual patient. After proper time for adjustment the jejunal loop serves most satisfactorily as a substitute stomach and the patient usually can enjoy a full meal without appreciable discomfort. The organ is not essential for life and such a complication as severe anemia is not encountered as frequently as one might have anticipated in view of the important role this organ ordinarily plays in hematopoiesis.

CANCERS INVOLVING THE GASTRIC CARDIA

The 8 to 10 per cent of patients with cancers involving the gastric cardia are no longer classified as incurable because the surgeon has not been able to pursue an upward exposure of the cancer-bearing segment to include the cardiac end of the stomach and the abdominal and thoracic esophagus so as to carry the resection high and thereby insure complete removal of the tumor and the adjacent lymph nodes. Dr. William Welch in his classical chapter on Cancer of the Stomach in Pepper's Textbook of Medicine, published three years after Billroth performed the first successful gastrectomy in humans in 1881, established certain criteria for the successful resection of gastric cancer, one of which was that the neoplasm should not extend beyond the stomach proper. A half century elapsed before this dictum was corrected and surgeons elected to remove a liberal segment of the esophagus by the combined abdominal and thoracic approach.

A small exploratory upper left midrectus incision is made in order to ascertain the presence or absence of hepatic and peritoneal metastases, the extension of the cancer to regional lymph nodes, the mobility of the cancer and the amount of distal uninvolved stomach available for subsequent anastomosis. If the exploratory findings warrant the continuance of the operation, the incision is then extended upward through the costochondral cartilages and laterally in the seventh intercostal space to intercommunicate the thoracic and abdominal cavities. The diaphragm is split in a radial direction down to and including the crura. The stomach and terminal esophagus are mobilized in the usual surgical fashion and the cancer-bearing segment is widely excised. If the distal half of the stomach is normal it may be mobilized and drawn into the chest for anastomosis with the severed end of the esophagus. This union is accomplished by an end-to-end type of layer closure supplemented usually by a free omental graft to insure protection for the line of sutures. In three instances a total gastrectomy was done by this route and the jejunum was then brought into the chest and anastomosed with the esophagus, in one instance by an end-to-side anastomosis supplemented by an entero-enterostomy and in two other instances by the Roux en-Y technique whereby the distal end of the severed jejunum was anastomosed to the esophagus within the chest and the proximal jejunal end was anastomosed by an end-to-side procedure with the distal jejunal limb at a lower level so that no regurgitation of bile and pancreatic juice occurred into the thoracic segment of the esophagus. The diaphragm is repaired by suture and the patient usually receives immediately a high caloric, high protein diet by means of an orojejunal tube passed through the anastomosis into the jejunum.

The exposure afforded by this technique is excellent and the technical difficulties are not great. The operative mortality is in the neighborhood of 20 per cent, but this figure can be explained by the fact that the operation is offered to aged patients, many of whom have cancers of the gastric cardia. In the Gastric Service at the Memorial Hospital this operation has been performed on approximately 50 patients during the past four years. Some of the early patients are still living and free of evidences of recurrence. Another indication of improvement in the surgical treatment of gastric cancer may be appreciated when we state that the resectability of cancers of the gastric cardia in our experience has increased to 58 per cent of the total number of patients subjected to laparotomy or thoracotomy.

CONCLUSIONS

Improvement in the end-results in the treatment of gastric cancer may be attributed to a greater awareness on the part of the general public, improved facilities for the diagnosis of cancer, a wider application of surgical resection by an increased number of surgeons who are performing the operations in numerous hospitals throughout

the United States, and finally by the introduction of extremely radical surgical procedures. These radical surgical procedures are of three types:

1. The removal of the organs adjacent to the stomach that are involved by contiguity with the cancer.

2. Total gastrectomy when the cancer involves the major part of the stomach.

3. Transthoracic, transdiaphragmatic cardiectomy for cancers involving the gastric cardia.

Although the operative mortality for the major procedures is greater than for the simple subtotal gastrectomy, the number of total patients salvaged from those having the disease is inevitably increasing. Added to this are the advantages occurring from a better appreciation of proper pre-operative and post-operative care of the patient and the more widely disseminated knowledge of the metabolic disorders coincident with and related to gastric cancer.

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Use of the Thymol Turbidity Test as an Aid in Diagnosis of Dysfunctions of the Liver

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WHEN serum from patients with liver disease is added to a barbital buffer saturated with thymol, turbidity is produced. This was observed by Maclagan[1,2] in 1944, and he gave the name, thymol turbidity test, to this reaction. Maclagan used this test as an index of parenchymal dysfunction of the liver. The degree of turbidity apparently varied with the degree of hepatic parenchymal damage. An analysis of the precipitate demonstrated that it contained globulin, phospholipid, cholesterol, and thymol. The mechanism of the action is unexplained, but there is some evidence that the reaction may be due to an abnormal globulin released into the blood stream in the presence of damage to the liver. This disturbance in the serum globulin fraction does not involve primarily the gamma globulins[4] which tends to differentiate the mechanism of the test from that of the cephalin-cholesterol flocculation test. The thymol turbidity test does not test any known function of the liver, and thus should be regarded as an indicator of disturbed liver metabolism rather than as a function test.

METHOD

Reagents. Thymol-barbital buffer. A barbital buffer of pH 7.8, saturated with thymol is prepared as described by Maclagan:[2] 1.03 gm. of sodium barbital, 1.38 gm. of barbital, and 3.0 gm. of powdered thymol crystals are placed in a 1,000 cc. Erlenmeyer flask. Five hundred cubic centimeters of distilled water are added and the solution is heated to the boiling point. The flask is removed from the flame and the contents mixed well by shaking. The solution is cooled to room temperature. On cooling, the solution becomes turbid. A small quantity (approximately 0.2 gm.) of powdered thymol crystals is added and the solution again mixed by shaking. The flask is stoppered and kept over night at room temperature. Thymol crystals form at the bottom of the flask. After standing over night, the solution is mixed once again by shaking, and is freed of crystalline deposit by filtration. The clear solution is used as the reagent and may be kept indefinitely at room temperature.

PROCEDURE

The tests in this series were carried out with a slight modification of the procedure described by Shank and Hoagland.[5] These authors recommend adding 0.05 cc. of serum to 3.0 cc. of thymol barbital buffer in a cuvette. Readings were made by them in a Coleman, Jr. spectrophotometer. In this series, 0.1 cc. of serum was added to 6.0 cc. of thymol barbital buffer in a cuvette. The contents of the cuvette were shaken well and after standing for 30 minutes the turbidity was determined in the Klett-Summerson photoelectric colorimeter. The readings were made using a red filter which has a wave length of 660 mu. The galvanometer was adjusted to 100 per cent transmission of light with a blank containing 6.0 cc. of thymol barbital buffer.

The turbidity of the unknown serum plus the thymol barbital buffer is expressed in units derived from a standard curve prepared by the use of barium sulfate suspensions.

This curve serves as the means of calculating the turbidity units of any given reaction between the unknown serum and the thymol barbital buffer.

By using the red filter in the Klett-Summerson photoelectric colorimeter, the interference of the absorption spectrum of hemoglobin resulting from hemolysis of the red blood corpuscles and of bilirubin which may occur in high concentration in the serum of patients with hepatic disease, is eliminated.

The turbidity standards are prepared by the method described by Shank and Hoagland.[5] Three cubic centimeters of 0.0962 N barium chloride solution is diluted to volume in a 100 cc. volumetric flask by the addition of 0.2 N sulfuric acid at 10° C. At this temperature the particle size of the precipitated barium sulfate is such that a comparatively stable suspension results. A 5 unit turbidity standard is prepared by adding 4.65 cc. of 0.2 N sulfuric acid to 1.35 cc. of the barium sulfate suspension in the standard Klett-Summerson cuvette. A 10 unit standard is prepared by adding 2.7 cc. of 0.2 N sulfuric acid to 3.3 cc. of the barium sulfate suspension. A 15 unit standard is prepared by adding 1.85 cc. of 0.2 N sulfuric acid to 4.15 cc. of the barium sulfate suspension, and a 20 unit standard is prepared by adding 0.6 cc. of 0.2 N sulfuric acid to 5.4 cc. of the barium sulfate suspension. At room temperature there is some tendency for the barium sulfate suspension to settle out, and for this reason the cuvettes should be well agitated just before readings are made in the photoelectric colorimeter. If a cuvette containing 6.0 cc. of distilled water is used as a blank, there is a straight line relationship between the optical density of various dilutions of the barium sulfate standard at 660 mu. (Figure 1).

RESULTS

1. *Presumably normal adults.*

In 60 presumably normal adults in this series the average turbidity was 2.4 units. In none of these was the thymol turbidity more than 5 units nor less than 1 unit. Normal values as given in the literature are 0 to 5 units.[1,2,3]

2. *Infectious hepatitis.* (Included in this group are

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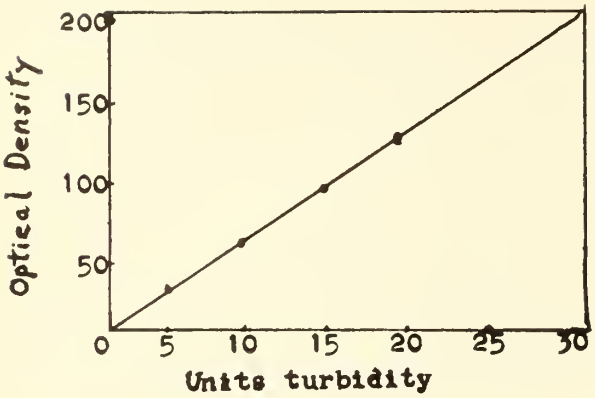


Figure 1.—Turbidity of barium sulfate suspensions as determined in the photoelectric colorimeter.

cases of "catarrhal jaundice" occurring in epidemic form in young adults.)

Significantly positive results were obtained in all of the 16 cases of acute infectious hepatitis studied in this series, showing an average of 16.8 units. In comparison with the bromsulfalein dye excretion test, icterus index, and cephalin-cholesterol flocculation test, the thymol turbidity was the last test to show positive results, and also, perhaps of more importance, was the last reaction to become negative. Because of the simplicity and rapidity, the thymol turbidity is an ideal test for serial determinations in infectious hepatitis, and, correlated with clinical evaluation, is perhaps the best indicator as to when to allow a patient with this disease to increase his activity.

It was observed in a group of Navy and veteran patients that, once the results of the thymol turbidity test became negative, and remained so for at least three weeks, heavy exercise did not cause any elevation in the number of turbidity units, or return of any clinical symptoms. In a similar group of patients, in whom the results of three consecutive thymol turbidity tests had been negative over a period of three weeks, the thymol turbidity units became elevated and clinical symptoms returned when these patients were given "liberty"; also a definite amount of liver tenderness was observed. In each case this liberty entailed poor dietary habits, plus a rather excessive use of alcohol over a five to ten day period.

It was further observed that in the cases of acute infectious hepatitis which went into the chronic hepatitic stage and in which ascites developed, the thymol turbidity reaction was even more markedly positive than in uncomplicated infectious hepatitis. An average of 21.5 units was obtained on initial determinations in these patients.

3. *Cirrhosis.*

Thymol turbidity tests were run on 36 cases of different types of cirrhosis. Seventy-five per cent of cases of cirrhosis fell within the "cirrhosis range" of 6 to 12 turbidity units.

The lowest determinations were found in all five cases of "alcoholism" with early fatty livers. Readings of 5 and 5.5 units were obtained in all of these patients. None of these patients had had any previous complaints referable to the liver or gastrointestinal tract.

Two of the three patients with turbidity values over 12 units died seven and ten days, respectively, after the tests were run. Autopsy studies in both of these cases revealed a typical advanced Laënnec's cirrhosis. In the third patient with a thymol turbidity value over 12 (14 units), liver biopsy revealed a toxic cirrhosis. Bromsulfalein dye excretion in the latter patient showed 20 per cent retention in 45 minutes and 8 per cent retention in 60 minutes (normal 10 per cent in 45 minutes and less than 5 per cent in 60 minutes).

4. *Other conditions producing hepatomegaly or jaundice.*

In six of seven cases of cardiac decompensation with congestive failure and markedly enlarged livers, normal values were obtained. In the seventh case, the determination fell in the "cirrhosis range," namely 7.5 units. This patient had 12 hospital admissions for congestive failure over a period of eight years, and on each admission a markedly enlarged liver was observed. He could perhaps be classified as a case of "cardiac cirrhosis."

In three cases of obstruction of the common bile duct, normal results were obtained with the thymol turbidity test, as also in three patients with cholecystitis and in one patient with an empyema and rupture of the gallbladder.

In three cases of thyrotoxicosis plus hepatomegaly, values of 8, 9, and 10 turbidity units, respectively, were obtained. These cases were considered to have cirrhosis in addition to the thyrotoxicosis. Following control of the thyrotoxicosis, the thymol turbidity units became lower, but remained elevated.

In two cases of disseminated lupus erythematosis, markedly elevated turbidity values were obtained.

5. *Carcinomatosis.*

Thymol turbidity tests were done on nine patients with abdominal carcinomatosis with hepatomegaly, or jaundice, or both. The diagnosis was confirmed by surgical exploration. In all cases without any gross evidence of hepatic metastases, normal values were obtained. In cases with gross involvement of the liver, the elevation of the thymol turbidity test corresponded to the degree of involvement. In all patients with gross hepatic metastases, the icterus index was 50 units or higher, and in two patients it was 154 and 170 units, respectively.

It is the opinion of the author that the thymol turbidity test may be very helpful in arriving at the diagnosis in patients in whom the onset of painless jaundice is rapid. Markedly elevated values are obtained in cases of acute infectious hepatitis and normal ones in carcinoma of the head of the pancreas unless long-standing biliary tract obstruction has been present or extensive metastases to the liver have occurred.

TABLE 1.—*Results in Thymol Turbidity Reactions in 60 Normal Subjects and in 120 Patients with Hepatomegaly and/or Jaundice*

	No. of Cases	Units of Thymol Turbidity 0.0–2.5	2.5–5.0	5.0–7.5	7.5–10	10–12.5	12.5–15	15–20	20–25	25–30	30–35	Mean
Normal	60	36	26	0	0	0	0	0	0	0	0	2.4
Acute infectious hepatitis	16	0	0	0	0	1	2	9	4	0	0	16.8
Chronic hepatitis	11	0	2*	1†	0	0	0	2	4	0	2	21.5
Homologous serum jaundice, convalescent stage‡	13	0	1	6	6	0	0	0	0	0	0	7.2
Cirrhosis	36	0	0	17	9	7	3	0	0	0	0	8.5
Congestive failure	6	0	6	0	0	0	0	0	0	0	0	4.0
Biliary tract disease	4	0	4	0	0	0	0	0	0	0	0	4.75
Carcinoma of the head of the pancreas without metastases	4	1	3	0	0	0	0	0	0	0	0	3.4
Carcinoma of the head of the pancreas with metastases	3	0	0	0	0	2	1	0	0	0	0	12.5
Disseminated lupus erythematosis	2	0	0	0	0	0	0	2	0	0	0	16.7
Miscellaneous§	25	0	16	5	2	1	0	1	0	0	0	4.9

* Tests run six months after all symptoms subsided. † Chronic hepatitis following infectious mononucleosis; test run three months after acute onset due to persistence of symptoms. ‡ All tests run two to three months after onset of acute symptoms. § Cases in this group included lymphomas, syphilis, pellagra, beriberi, infectious mononucleosis, amebic hepatitis, pernicious anemia, and diabetes.

SUMMARY AND CONCLUSIONS

In this series of cases the thymol turbidity units were markedly elevated in chronic hepatitis with ascites. The mean in the group of 16 patients with acute infectious hepatitis was 16.8 units, and the mean in the group of eight patients with chronic hepatitis with ascites was 21.5 units. The first determination in the acute phase of all cases of infectious hepatitis showed thymol turbidity values over 12 units, and under 30 units.

In 75 per cent of all cases of cirrhosis, the values fell within the "cirrhosis range" of 6 to 12 units. The lowest values (5 and 5.5 units) among the patients with cirrhosis were obtained in those with a definite history of alcoholism and early fatty livers.

In cases of hepatomegaly associated with cardiac decompensation, normal values were obtained in six of seven patients. In the seventh case, a value of 7.5 units was found, but this patient had had 12 hospital admissions for congestive failure in the past eight years. Therefore, unless there have been repeated liver insults, normal values may be expected in patients who have a large liver associated with congestive failure.

In extrahepatic biliary obstruction due either to a common duct stone, to carcinoma of the head of the pancreas, or to biliary tract carcinoma, normal values may be expected unless (1) the obstruction be of such long standing as to produce secondary liver damage, or (2) there be extensive metastases to the liver.

The thymol turbidity test of Maclagan, as modified by Shank and Hoagland, may be a useful adjunct in the differential diagnosis of extrahepatic and intrahepatic block, and because of its simplicity and rapidity, it should prove to be a valuable test in following the course of various types of hepatic and biliary tract disease. The results of the test can be reported to the physician within one hour after the blood is drawn from the patient. In a somewhat similar test that measures disturbed liver metabolism, the cephalin-cholesterol flocculation test, a 48-hour period must elapse before the results can be reported.[6]

The chief value of the thymol turbidity test at the present time appears to be for serial determinations in infectious hepatitis. Another very important feature is the usefulness of the test as a yardstick in determining the length of convalescence in this disease. Because of the fact that the thymol turbidity test is the last test of liver dysfunction to show negative findings in infectious hepatitis, it should be incorporated as one of a panel of liver function tests routinely performed in studying causes of hepatomegaly and jaundice.

In this series of 120 cases it was found that the degree of turbidity in the thymol turbidity test varied with the degree of hepatic parenchymal damage. For this reason the thymol turbidity test may be used as an index of parenchymal liver dysfunction.

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Physiological Basis for the Treatment Of Intractable Asthma*

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SOME years ago Dr. Chevalier Jackson coined a phrase which has become a medical cliche: "All is not asthma that wheezes." He implied that much wheezing goes on that is not asthma. To this the author would like to take exception. To the practicing physician everything that wheezes is asthma. To him, asthma means wheezing. Wheezing means bronchial obstruction. Therefore, asthma and bronchial obstruction are synonymous.

Bronchial obstruction may be due to many causes — new growths, congenital abnormalities, foreign bodies, swelling of the bronchial mucosa, mucous secretions, bronchospasm and so on. New growths, congenital abnormalities and foreign bodies may in themselves cause mechanical obstruction. Swelling of the bronchial mucosa, mucous secretions and bronchospasm are usually secondary obstructions.

The bronchi respond to irritation with a defense mechanism. The purpose of this mechanism is to prevent the entrance of noxious agents, or to dilute or get rid of them. In the lower respiratory tract this reaction represents what laryngospasm represents in the upper respiratory tract, namely, a protective mechanism. In the lower respiratory tract it is characterized by bronchospasm, the outpouring of mucous and coughing.

This protective mechanism can be initiated by an allergic reaction, an infectious reaction or a mechanical one. No matter which it is, we call it bronchial asthma. In other words, all asthma is the result of obstruction of the respiratory tract. But the initiating cause may come from a mechanical factor — as a growth — or it may come from an irritating stimulus, allergic, infectious or otherwise.

Many irritants may set off the asthmatic defense pattern. Two, however, are most common: One, the allergic antigen-antibody reaction and, two, infection. The allergic reaction is by far the most common, so common in fact that the term bronchial asthma is too often taken to mean only allergy. It was this unfortunate identification that impelled Jackson to coin his famous phrase implying that, to many people, wheezing means only one thing — allergic asthma. In allergic asthma the antigen-antibody reaction acts as the precipitating irritant which sets off the bronchial defense mechanism. In infectious asthma the asthmatic response is due to the infection *per se* which acts as the precipitating irritant setting off the defense mechanism in the same way that allergy does. It is not set off by an allergy to the bacteria causing the infection.

Infection may cause asthma in any age group. But among older people the onset of pulmonary emphysema creates an added susceptibility to infection. When pulmonary emphysema is present, it not only impairs respiration, it also impairs the ability of the bronchi to rid themselves of secretions and debris. This increases the susceptibility to recurrent and chronic infection. Infection destroys the ciliated epithelium of the bronchial mucosa. It also makes the bronchial walls thick and rigid. Thus a functional bronchiectasis is produced. The accumulation of foreign matter may then act as an irritant, precipitating the asthmatic attack.

Among younger people, the same sequence of events may follow. But the development of pulmonary emphysema comes not as the result of senile changes but as the result of persistent allergic asthma. In other words, allergic asthma often produces irreversible pulmonary emphysema. The allergy may then disappear. The emphysema, however, persists and becomes responsible for the asthmatic attack. Actually, the allergy has become a part of the past history. It no longer functions as the present cause.

THEORY OF NEUROSIS

Even though both allergy and infection may call forth an asthmatic response, it is well known that many individuals have respiratory allergy or infection, or both, and yet do not have asthma. Coughing is their only response to irritation. For this difference between individuals there is no satisfactory organic interpretation. An interpretation is offered, however, by the psychoanalytic theory of neurosis. Detailed psychoanalytic studies of asthmatics have led to the conclusion that the asthmatic attack is a sort of substitute for an inhibited or repressed cry of anxiety or rage. It is often a cry to gain affection from a denying and rejecting mother. A person chooses the asthmatic pattern for the expression of his emotional conflict, probably either because of a constitutional determinant or because of conditioning by one or more episodes of organic bronchial obstruction.

The obstruction which produces the wheezing dyspnea in bronchial asthma is caused by three factors acting singly or in common. These are bronchospasm, plugging by mucous secretion and edema of the bronchial mucosa. At the beginning of the attack bronchospasm appears to play the most important obstructing role. As the attack progresses mucous plugs and bronchial edema assume the more important obstructing roles.

As obstruction sets in a series of related physiologic disturbances develop. These are progressive and self-propagating and result in a vicious spiral which may end in death. The first of these disturb-

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ances is the development of a marked increase in negative intrapleural pressure during inspiration. This creates a sucking action on the capillaries of the bronchi. causing the development of bronchial edema. Meanwhile pulmonary emphysema develops with flattening of the diaphragm, diminution in vital capacity and increase of residual air. These interfere with the respiratory exchange and add to the anoxemia. Anoxemia produces anoxia. particularly of the medullary respiratory center. The patient then becomes dyspneic. His respiration is labored. As a result he is concerned only with getting his breath and fears to take time out to drink. At the same time the labor of breathing causes a profuse outpouring of sweat. Furthermore, the drugs taken for relief are often diuretic. These three factors—water deprivation. excessive sweating and diuresis—cause hemoconcentration. Hemoconcentration not only adds to the anoxia. it also causes the mucous secretion in the bronchi to become thick and viscid. further increasing bronchial obstruction.

Simultaneously with the development of anoxemia and anoxia there is an excessive accumulation of carbon dioxide. In consequence the oxygen dissociation curve is changed so that tissue anoxia is further increased. The excessive accumulation of carbon dioxide. the lack of oxygen and the effect of depressant drugs may make the medullary respiratory center completely inactive. Respiration is then carried on only by anoxic stimulation of the carotid body and aortic chemoreceptor centers. When these become depressed. death from respiratory failure results.

RESPONSE TO EPINEPHRINE

This rather brief summary of the pathological physiology of bronchial asthma clarifies several diagnostic and therapeutic observations concerning the development and course of an asthmatic attack. For example. we know that many patients when seen early in an attack of asthma or in a mild attack respond almost miraculously to an injection of 1/1000 epinephrine. On repeating the injection its action may become more and more transitory and ineffective. The patient has become epinephrine-fast. Many explanations have been given for the development of this state—among others. that a tolerance to epinephrine has been established: i.e.. that bronchospasm is no longer relieved by epinephrine. Since this is contrary to what has been found in the experimental laboratory the only logical conclusion that can be drawn is that the patient has passed the stage where his bronchial obstruction is primarily due to bronchospasm and has reached the stage of bronchial obstruction due to mucous plugging and bronchial edema. Further administration of epinephrine at this stage is not only futile but even harmful. The observation that after a period of withdrawal epinephrine may again become effective does not mean that epinephrine reactivity has been regained but that the bronchial obstruction is again due chiefly to bronchospasm.

With the development of epinephrine-fastness we may conclude that the bronchial obstruction is due chiefly to mucous plugging or bronchial edema. Treatment must then be directed toward the relief of one or the other of these conditions. If the mucous that is coughed up is seen to be thick and tenacious and if in addition we find evidences of hemoconcentration, such as a high red cell count and high hemoglobin value, we may conclude that mucous plugging is probably the chief cause of the bronchial obstruction. Treatment is then directed toward the relief of hemoconcentration. This may be accomplished by the administration. by intravenous drip, of 5 per cent glucose in normal saline. which should be repeated or continued until such time as the red cell count and hemoglobin concentration have reached normal values. Glucose is used to combat the acidosis which accompanies any prolonged attack of asthma and normal saline is used to make up the electrolyte lost by the excessive perspiration and diuresis. To aid further in thinning down of the bronchial mucous, sodium iodide may be added to the intravenous drip.

IMPROVEMENT WITH RELIEF OF HEMOCONCENTRATION

As hemoconcentration is relieved the patient begins to cough up more and more plugs of mucous and generally within 48 hours has recovered from his acute attack. Meanwhile for immediate relief during episodes of acute exacerbations of dyspnea. 0.5 gm. of aminophylline may be administered intravenously or per rectum. Despite some evidence that aminophylline acts as a broncho dilator. its efficiency seems to lie chiefly in relieving fatigue of the medullary respiratory center. for many patients feel relieved after the administration of aminophylline yet show little if any change in the respiratory tracings taken before and after such administration. At this point it is also well to warn that aminophylline may act more as a diuretic than as a central stimulant. On occasion it has been known to cause such great diuresis that despite the administration of as much as five liters of intravenous fluids the hemoconcentration has not been relieved. Therefore. the blood must be frequently examined to determine the state of hemoconcentration.

Occasionally. despite disappearance of hemoconcentration the patient is not relieved and may not cough up any thick mucous plugs. in fact may cough up large amounts of thin, frothy sputum. We may then presume and perhaps confirm by bronchoscopic examination that the cause of the bronchial obstruction is bronchial edema. Under these circumstances the administration of 50 per cent glucose intravenously is indicated and often gives prompt relief.

RESPIRATORY DEPRESSANT DRUGS

A fundamental understanding of the mechanism of bronchial asthma is useful not only for preventive, curative and palliative treatment but also for avoiding improper treatment. treatment detrimental to the welfare of the patient.

The most serious menace to the welfare of the asthmatic patient is the depression of his respira-

tory center. With the development of anoxia the center becomes increasingly vulnerable to respiratory depressant drugs.

It is common practice to give such drugs to patients in an asthmatic attack. This is often necessary and justifiable if they are intended to relieve the asthmatic attack. The distinction is made on the basis of the dosage required for the relief of each condition. It takes a larger dose of a respiratory depressant drug or a more powerful drug to relieve an attack of asthma than it does to relieve fatigue or nervousness. With the respiratory center already depressed by a lack of oxygen and without any means of measuring the degree of depression, it becomes unsafe to attempt to relieve the asthma by this means. The powerful respiratory depressants such as the opium derivatives should never be used and the less powerful depressants such as the barbiturates should be used with infinite caution and only in small dosages. The anesthetics have no place in the treatment of the asthmatic attack, since they depress the respiratory center and, if used in effective dosage, inhibit the cough reflex which is so essential to the clearing of the bronchi.

In spite of all these strictures against respiratory depressants in the treatment of the asthmatic attack, many will cite experiences of their successful use. To this there is but one answer, that the drugs were given at a time when regardless of dosage or the type of drug used the respiratory center was not sufficiently depressed to be adversely affected. It is probably true that in many cases such treatment can be safely given but since we cannot always identify the patient or attack in which it is safe to administer a respiratory depressant and since measures which do not use respiratory depressants are effective, it would seem the better part of caution to avoid their use. Death in bronchial asthma should occur only from complications. It should never occur from the administration of drugs which are intended to prevent it.

Few asthmatics die without the aid of a doctor. The patient's panic often engulfs the doctor. He is then willing to try anything instead of using forbearance and caution and a continuous observation of the individual and his attack.

SUMMARY AND CONCLUSIONS

1. Bronchial asthma means bronchial obstruction regardless of the cause.

2. Bronchial obstruction calls forth a defense response, the abnormal respiratory pattern known as bronchial asthma.

3. The most common stimulants calling forth this defense mechanism are allergy and infection.

4. The bronchial obstruction produced by the defense mechanism is due to bronchospasm, mucous plugging and bronchial edema.

5. These lead to anoxemia, anoxia, dehydration and respiratory depression.

6. A proper appreciation of the physiological pathology underlying each of these conditions is the only basis for proper therapy of bronchial asthma.

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MEDICAL PROGRESS:

Management of Patients With Various Types of Goiter

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MEANS[22] has stated aptly that "Forms of therapy ultimately survive or disappear in accordance with the impression they make on dispassionate, yet qualified observers." In a field such as that represented by thyroid diseases, one cannot hope easily to satisfy all practitioners of medicine. The surgeon traditionally thinks of goiter as a pass to the operating room, the internist tends to protect the goiter from the surgeon, the general practitioner tends to protect the patient. This paper is an attempt to correlate some of the recent advances in our knowledge of goiter to the end that appraisal of the individual patient and institution of therapy may be simplified.

ENDEMIC (NONTOXIC DIFFUSE) GOITER

In spite of Greenwald's[10] recent skepticism as to the role of iodine deficiency in the etiology of endemic goiter, small amounts of iodine remain the best treatment of this condition when there is no evidence of hypothyroidism. The adolescent who presents herself with a diffuse, non-nodular thyroid enlargement should be advised to continue a small (one drop of compound solution of iodine per week) dose of iodine indefinitely. Otherwise further enlargement may occur during pregnancies and the menopause with greater likelihood of the formation of involutionary nodules that in turn may go through degenerative changes necessitating subtotal ablation. Any decrease in size may take many months and by that time the patient may tire of taking or forget the need of iodine. Some system of follow-up should be adopted by the physician to be certain the patient continues treatment. Some of these patients have a low basal metabolic rate or one that is at the lower limits of normal with an elevated or high normal plasma cholesterol with clinical manifestations of mild hypothyroidism. Not infrequently iodine alone will suffice to relieve the mild hypothyroidism as well as to cause a decrease in the size of the goiter. When the rare complication of frank hypothyroidism occurs, substitution therapy with thyroid is indicated.

NONTOXIC NODULAR GOITER (SINGLE NODULES)

In 1938, Schlesinger, Gargill, and Saxe[28] reviewed the protocols of 1,371 autopsies in which the thyroid had been examined. They concluded that under the age of 30, a palpable nodule in the thyroid should be considered potentially malignant, that this malignant potentiality becomes greater between the ages of 30 and 50 (although a larger proportion of such nodules will prove to be benign) but that after 50 nodules in the thyroid are so frequent as "to be almost physiologic." In 1945, Cole, Slaughter, and Rossiter[5] and later Hinton and Lord[16] again pointed out the dangers of malignancy in nodular goiters; the latter authors suggested that a nodule in the thyroid has the same significance as a lump in the breast.

Table 1[17] shows the incidence of benign and malignant tumors to be so high in patients with solitary nodules in the thyroid that radical removal is the indicated treatment.[40]. The presence of a single nodule, the simultaneous appearance of the nodule and pressure symptoms, the absence of a history of residence in an endemic goiter region or of other goiters in the family and a history of growth not associated with sudden enlargement, such as would accompany hemorrhage into a nodule, are all features that lead one to suspect that the nodule is a neoplasm. However, since no clinician is able to make a histologic diagnosis by palpation of a nodule through the superficial structures of the neck, the solitary nodule in itself dictates the need for radical resection. Previous workers have stressed the firmness of a nodule as favoring neoplasm but many thyroid tumors are no firmer than involutionary nodules. In fact, some of the papillary tumors are cystic and soft. In order to protect the 15 per cent of patients with early carcinomas and the 41 per cent with potentially malignment tumors, one has to advise thyroidectomy in all patients with single nodules. In patients with only involutionary nodules, this operative procedure relieves the pressure symptoms that often exist.

TABLE 1.—*Pathologic Diagnosis of Solitary Nodules in 97 Patients*

Involutionary nodules	35
Cyst	2
Thyrolditis	3
Unclassified	3
Adenoma	39
Intracystic papilloma	1
Malignant adenoma	1
Adenoma with invasion	2
Carcinoma	11
Total	97

NONTOXIC NODULAR GOITER (MULTINODULAR GOITERS)

When patients with probable or definite malignancies of the thyroid are eliminated, most patients with multinodular goiter will fall into (1) a group in which the goiter is an incidental finding and

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(2) a group in which the goiter is the presenting complaint.

The first group of patients probably will give a history of residences in an endemic goiter region, a family history of goiter, a long history of goiter and no local symptoms of pressure nor systemic evidence of any thyroid disease. Examination will disclose a nodular enlargement of the thyroid with minimal or no evidence of pressure on the trachea or recurrent laryngeal nerves. Even then the patient should not be advised "to forget the goiter" but to have periodic examinations of his goiter and to report any change in size or any pressure symptoms. Such a regimen seems more logical than the idea of removal of all goiters as expressed by Cole, Slaughter, and Rossiter.[5]

The second group of patients with pressure symptoms is almost certainly to be relieved only by subtotal thyroidectomy. Enucleation of nodules is an antiquated procedure and has properly given way to subtotal ablation. Providing sufficient iodine is administered throughout life, a few (as little as 3 to 5 grams) grams of thyroid tissue left *in situ* at operation permit adequate hormone production to maintain the patient in normal thyroid balance. In this group, the incidence of postoperative hypothyroidism is low and in any case can be treated easily with a desiccated thyroid preparation. Parathyroid deficiency and recurrent laryngeal nerve injuries are infrequent in the hands of well-trained thyroid surgeons.

TUMORS OF THE THYROID

Since Ward[37] and Pemberton[26], among others, have pointed out the relatively favorable prognosis in malignancies of the thyroid, a major task in the study of goiter in patients is the differentiation of involutionary nodules from neoplastic nodules, particularly before the patient reaches surgery. If the surgeon believes he is dealing with a tumor, he is better prepared to carry out more radical surgery.

Neoplasm should be suspected when (1) the patient has never lived in an endemic goiter region, (2) there is no family history of goiter, (3) the thyroid enlargement appears simultaneously with symptoms of pressure, and (4) the goiter shows evidence of growth. Hemorrhage or cystic degeneration producing sudden enlargement of the thyroid may take place in neoplasms as well as in involutionary nodules. Regional or distant metastases usually clinch the diagnosis of malignant tumor, except in the occasional instance when such tumors as carcinoma of the kidney metastasize not only to bones, lungs, and lymph nodes in the cervical region but also to the thyroid—the latter tumor in general gives other evidence of its origin.

The treatment of choice when a malignant tumor of the thyroid is suspected is total thyroidectomy combined with a radical neck dissection if regional metastases are found on the side of the tumor. More rarely a bilateral neck dissection must be carried out. The writer and most of the members of the Thyroid Committee of the University of California Hospital feel that this should be followed by x-ray only in those late cases where enough tumor remains, because of inability to remove the growth surgically, to cause continued pressure symptoms. Otherwise, x-ray is reserved for the inoperable patient and the inoperable recurrence.

Hamilton, Soley, and Eichorn[11] were unable to demonstrate significant deposition of radioiodine in carcinoma of the thyroid (two cases) and Hamilton[12] later reported two further cases studied by this group with similar findings. It was hoped, of course, that tumors of the thyroid would take up radioiodine and that this agent would be useful therapeutically. In 1942, Keston and co-workers[18] and, two years later, Frantz and co-workers[9] demonstrated the first positive evidence that thyroid carcinoma (metastatic) could take up radioiodine. In 1946, Leiter and his group[21] and again Seidlin and co-workers[29] reported therapeutic trials with radioiodine in two patients with metastatic carcinoma from the thyroid. Both of these patients had the unusual status of hyperthyroidism with the excess hormone apparently originating in the carcinomatous tissue. In ten patients with carcinoma of the thyroid studied at the University of California[31] recently, the metastases in one took up enough iodine[131] to suggest that large doses could be expected to have a radiation effect and the metastases in two others showed definite uptake. (In these two it is questionable whether the deposition of radioiodine could point to later therapeutic effectiveness.) Thus it is apparent that at least a small percentage of patients with carcinomas of the thyroid can be expected to respond to radiation therapy in the form of radioactive isotopes of iodine. The requirements of equipment and personnel suggest limited use of this method for some time to come. In the writer's judgment, radioiodine will be used as a substitute for ordinary roentgen therapy and not for surgery.

THYROIDITIS

During the past decade, an apparent increase in thyroiditis has been noted. Whether this is due to better recognition of the thyroiditides or to an absolute increase is uncertain. The classification in Table 2 is the most useful one from the diagnostic and therapeutic standpoints.

TABLE 2.—*Classification of Types of Thyroiditis*

1. Acute infectious, with or without suppuration.
 Organisms: Streptococcus, staphylococcus, miscellaneous.
2. Chronic infectious.
 Syphilis, tuberculosis, and other granulomata.
3. Subacute or chronic with inflammatory process in thyroid.
 a. Strauma lymphomatosa (Hashimoto's struma, lymphadenoid goiter).
 b. Riedel's struma.
 c. Unclassified.

Diagnosis of the acute infectious type of thyroiditis depends on a story of some infection, usually respiratory, followed by tenderness and pain in the region of the thyroid, fever, signs of inflammation in the neck, and often symptoms and signs of acute hyperthyroidism. The process in

the thyroid may go on to suppuration. Occasionally the same organism may be cultured from pharynx and from thyroid. Treatment is with sulfonamides and antibiotics, with drainage if necessary. This type of thyroiditis represents about 5 per cent of thyroiditis seen at the University of California and in consultation practice and therefore is relatively rare in occurrence.

Chronic infectious thyroiditis is also rare and is far more common in autopsy material than clinical practice. In one recent case seen at the University of California Clinic, in which the Wassermann was positive and a biopsy showed a granulomatous process in the thyroid and in an adjacent lymph node, antiluetic treatment was followed by remarkable regression of the thyroid, decrease in the size of regional lymph nodes and relief of local symptoms. It must be admitted that no spirochetes were seen in sections and therefore the exact diagnosis remains in doubt. Tuberculosis of the thyroid is diagnosed without demonstration of tubercle bacilli in the majority of cases, and the better diagnosis is therefore "granuloma of the thyroid of unknown etiology."

Most patients with thyroiditis fall in group 3 (Table 2). Struma lymphomatosa is the most frequent type. Symptomatology is variable. Symptoms begin with pain and tenderness in the thyroid, with local pressure, malaise, low grade fever, and not infrequently a history suggesting hyperthyroidism. The thyroid is firm or rubbery to palpation and is usually but not always tender. Physical findings and laboratory tests usually do not confirm the presence of hyperthyroidism. The natural history of this little understood syndrome has not been clearly defined and the etiology is unknown; therefore no dogmatic statements can be made regarding therapy. Roentgen therapy may quiet down the process. If constriction of the trachea and dysphagia occur from paratracheal and retracheal extension of the thyroid, thyroidectomy probably is preferable to splitting the isthmus. Treatment with radioiodine is not likely to replace roentgen therapy since these glands take up little iodine, in fact much less than do normal thyroids.[11,31] Some of these patients develop hypothyroidism, and desiccated thyroid then should be administered. It is possible that substitution therapy with thyroid in all patients would shorten the course and help prevent recurrences.

Riedel's struma is characterized by stony hard enlargement of the thyroid (which may occur in part or all of the gland), obstructive symptoms and often hypothyroidism or myxedema. De Courcy[6] believes the primary process to be due to arterial changes, a view that does not have wide acceptance. Joll[17] has emphasized the poor prognosis without thyroidectomy, death being caused generally by respiratory obstruction. There have been no deaths among the eight or so patients I have seen. The major complication of surgery has been recurrent laryngeal nerve injury, in one case requiring a King[19] procedure because of bilateral cord paralysis. All of my patients have needed thyroid postoperatively.

The third group of subacute or chronic thyroiditis (Table 2) represents the most frequent type seen at the University of California Clinic in recent years. The clinical picture is more fulminating than that seen in struma lymphomatosa and the pathological picture includes lymphocytic infiltration and scarring. Fever may reach 103 degrees Fahrenheit or higher, the thyroid is more tender and painful than in struma lymphomatosa, the sedimentation rate rapid and clinical and laboratory evidence of hyperthyroidism not infrequent. The course runs for six to eight weeks and may be followed by recurrent and equally severe relapses. The etiology is unknown. Treatment has been radical thyroidectomy and subsequent therapy with desiccated thyroid. King and Rosellini[20] first reported good results in eight of eleven patients with thiouracil treatment in a dose of 0.2 Gm. three times daily for about three weeks. The writer has had dramatic success with three patients, reasonable success with two, and apparent failure in two patients. This therapy is empirical but efficient enough to warrant thorough trial and study.

HYPERTHYROIDISM

Means[22] stated in 1946 that "with newer forms of therapy available, the whole question of what is the best form of treatment for Graves' disease is again thrown wide open" although in 1942[23] he had stated, "The conclusion seemed warranted that subtotal thyroidectomy following adequate preparation by a course of iodine offered more overall benefit than any other program then available."

Patients with hyperthyroidism and nodular goiter should be prepared with iodine or thiouracil (or propyl thiouracil) and iodine and then be subjected to subtotal thyroidectomy. The only reasons for not subscribing to this outline of therapy should be (1) refusal of the patient to submit to operation and (2) the coincidence of other diseases that make the risk unwarranted.

Patients with hyperthyroidism and a diffuse (non-nodular) goiter may be offered a wider range of effective therapeutic regimens. Preparation with iodine followed by subtotal thyroidectomy represents the best therapy in the average patient. In severe hyperthyroidism, especially with a greatly enlarged thyroid and with complicating ectopic cardiac rhythms and cardiac failure, thiouracil or propyl thiouracil plus iodine bring the patient more successfully to a euthyroid state and thereby diminishes the operative risk.*

Roentgen therapy in adequate dosage remains a good method of therapy in selected patients.[32] Selection is based on (1) a moderate degree of hyperthyroidism, (2) moderate enlargement of the thyroid (not over 50 to 60 grams), (3) absence of nodules in the thyroid, (4) absence of complicating cardiac problems, (5) preferably absence of sun sensitivity, and (6) absence of history of recur-

* Readers are referred to the excellent and comprehensive review by S. L. Gargill and M. F. Lesses in the New England Journal of Medicine, vol. 235, pp. 717-728, November 14, 1946, for some of the fundamental aspects of diseases of the thyroid gland with an extensive bibliography.

rent laryngitis. These simple criteria will allow the inclusion of a fair portion of all patients with hyperthyroidism and reasonable certainty of results satisfactory both to patients and physician.

Radioiodine[4,13,14,15] as a form of irradiation therapy for Graves' disease has now had a trial of five years. Actually, limitations in the amount of radioactive iodine available make our experience in terms of adequate follow-up somewhat scanty, although the volume of patients treated by the two groups at the Massachusetts General Hospital and the group at the University of California Hospital has provided sufficient experience to allow certain conclusions.

When adequate dosage of radioiodine is administered, the thyroid returns to normal size and clinical symptoms are relieved more rapidly than with x-ray. Single doses of even 2,000 microcuries may produce a temporary exacerbation of symptoms of hyperthyroidism and mild to moderate local tenderness in the thyroid. Methods of measurement of radioiodine have varied so that there has been some difference between the San Francisco and the Boston millicurie, the latter being smaller. Also the average physician will be confused by tremendous variation in the total recommended doses, a variation due in part to the type of iodine used (iodine^{130} with a half life of 12.6 hours and iodine^{131} with a half life of eight days), in part to differences in measurement of the dose, and finally to difference in judgment on the part of the therapist as to the amount needed. It is important to measure the uptake of iodine by the thyroid of each patient with each dose in order to estimate the total radiation of the thyroid. These technical details are mentioned in order to stress the point that radioiodine therapy is not yet one that can be given outside of certain centers. The writer is convinced, however, that radioiodine will soon be an accepted, satisfactory method of treating a larger proportion of patients with Graves' disease than would be chosen for roentgen therapy, and may even replace surgery for the average patient.

ANTITHYROID AGENTS

Antithyroid agents, represented mainly by thiouracil and propyl thiouracil, may be used to prepare patients for surgery[27] or alone as medical treatment[1,2,38,39] Two factors that warrant consideration are (1) 50 per cent of patients so treated will have recurrence of hyperthyroidism after thiouracil is discontinued, and (2) toxic reactions occur in about 15 per cent of all patients. The mortality from thiouracil alone is approximately 0.5 per cent and thus equals the surgical mortality found in most clinics.[25,36] Leucopenia occurs in just under 4 per cent and agranulocytosis in nearly 2 per cent. These brief data lead one to the conclusion that thiouracil itself will not long be used in the medical treatment of Graves' disease.

In contrast to thiouracil, propyl thiouracil[3] is just as effective and far less toxic. In a recent personal communication, Doctor Astwood stated that he had treated 180 patients with propyl thiouracil with no severe toxic reactions; indeed the only toxicity exhibited was mild drug fever in two of his patients. This derivative, then, offers far greater promise than thiouracil, and it and perhaps other derivatives, as yet undiscovered, will write a new chapter in the therapy of Graves' disease.

Means[22] in 1942 stated that "in certain cases long continued exhibition of iodine alone had been found to be sufficient treatment" in Graves' disease, and further in 1946 that "this last may still hold true occasionally." I feel that iodine alone is rarely indicated.

TREATMENT OF HYPERTHYROID PATIENT WITH SEVERE EXOPHTHALMOS

The hyperthyroid patient who has severe exophthalmos[7,8,24,33,34,35] presents a special problem. Treatment must be directed in a manner that will protect the eyes. Such a patient has two chances out of five of having a significant increase in exophthalmos if he is prepared and his thyroid is subtotally resected in the usual manner. If, following thyroidectomy, he is given thyroid to tolerance, he has somewhat less chance of further protrusion of his eyes. If only the eyes are treated and he is given iodine and thyroid to tolerance, one is faced with the difficulty of treating two diseases. While the eyes are being treated fairly, is his hyperthyroidism also being treated fairly? The answers to management of this special group of patients probably are that (1) the eyes should be treated with thyroid to tolerance, (2) the hyperthyroidism should be treated according to one of the methods outlined in preceding paragraphs.

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EDITORIALS

Aerosol Therapy

Respiratory diseases have been treated by inhalations since the very beginnings of the medical art. Fresh air, salt air, desert air, and medicated steam inhalations are all forms of therapy so common and long practiced that they are scarcely regarded as special forms of treatment. Of these, salt air and medicated steam inhalations are actually forms of aerosol therapy. During the era of heroic medications, patients were subjected to inhalation treatments with mercury in vaporatoriums. Absorption through the lungs was so efficient that the frequency of resulting mercury poisoning forced the abandonment of this procedure.

In recent years the successful use of concentrated epinephrine aerosol by inhalation for the relief of acute attacks of bronchial asthma has stimulated interest in the use of other aerosols for respiratory diseases in general.

Beginning with the work of Sales-Eirons in 1855[1] continuous investigation by a series of workers has been carried on to determine the local effects, the degree of systemic absorption, and the distribution in the air spaces of the sinuses and lungs of inhaled medications.

The extent of distribution of these substances is dependent on the velocity with which the aerosol is delivered and the strength of the suction created by the individual's inhalation. Once in the respiratory chambers the aerosol will be further distributed by diffusion and convection, as well as by the action of the cilia.

The size and weight of the particles which constitute an aerosol suitable for inhalation have been determined. The spray produced by an ordinary atomizer is unsatisfactory because it is composed for the most part of droplets too large and heavy to be inhaled into the tortuous air passages and chambers of the respiratory tract. In practice, the suitability of an apparatus can be quickly tested by directing the mist it generates against a glass surface, which must remain clear of drops if it is to be satisfactory.

There are several sources of pressure for operating the nebulizing apparatus. A rubber bulb squeezed by hand or foot, a tank of compressed air, oxygen, helium, or carbogen or even steam can be used. Each has its conveniences and special advantages.

The most common medicinal aerosol in use at the present time is epinephrine. The idea of its administration by inhalation appeared very soon after the effectiveness of it by hypodermic injection was demonstrated.[2] This practice was abandoned because the 1:1000 epinephrine employed at that time for inhalation did not relieve the ordinary attack of bronchial asthma. It was not until about 1933 that the idea of using a more concentrated solution occurred. The method was reintroduced because of the simplicity of technique, the rapidity of action, the relative freedom from constitutional side effects, and the dramatic relief secured. A 1:100 solution of epinephrine is now in general use.

During the war much was learned about the effects of inhaled materials which is now being applied for therapy. The chemical warfare service was charged with the responsibility of developing and studying noxious and lethal aerosols, and at the same time their possible counter measures. Dr. Harold Abramson was placed in charge of the medical aspects of this investigation. He had at his disposal the facilities of the commercial nebulizer manufacturer and their research departments, laboratories for animal experimentation together with a sufficient number of trained experts and personnel to work out the many phases of the problem.[3,4]

Professor A. L. Krueger in studying influenza used his authority and facilities as head of the Navy Medical Research Unit No. 1 to investigate

the transmission of "air-borne" infection in general. He demonstrated the uniform distribution of inhaled aerosols throughout both lung fields of the experimental monkey, using as an indicator radioactive chromic phosphate.[5]

For many years patients have attributed certain attacks of bronchial asthma to the aftermath of an upper respiratory tract infection even though the classical signs and symptoms: muscular aches and pains, fever, and leukocytosis were not always present. Allergists on the other hand would write long and learned sounding articles with long bibliographies insisting that infection was not the precipitating cause, but that what the patient thought was an infection was simply the beginning of an asthmatic attack. It appears that the patient may be right, for if penicillin, streptomycin, tyrothrycin, hydrogen peroxide or sulfa solutions are prescribed for use in his nebulizer, he can often secure relief, and abort the usual prolonged siege. This phenomenon merits further consideration.

Now that the use of inhaled medicaments has been re-established as a potent therapeutic procedure, more detailed studies exploring the wide selection of agents suitable to be nebulized are indicated. One technique for the selection of the best aerosol to be used for a particular patient is to actually drop the solution on the colonies that grow on the patient's sneeze or cough plate, and see which solution is most lethal to the colonies present.

Investigations are under way for applying the principles of aerosol therapy to most of the diseases of the upper and lower respiratory tract. To date, the complicating secondary infections incident to bronchitis, bronchiectasis, and pulmonary tuberculosis are being treated by this technique. Patients subjected to chest surgery are treated pre-operatively and postoperatively to lessen their sputum, thereby relieving a great deal of their cough and expectoration.

Obviously the doctor must control the administration of solutions prescribed, as hypersensitiveness and acute reactions are to be expected in the use of drugs by inhalation, just as they are encountered coincident to the use of them by mouth, locally on the skin or by parenteral administration.

A new chapter in drug administration by aerosol therapy is being written. The simplicity of application should not minimize the physicians responsibility to its intelligent use.

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Health Insurance Propaganda

Governor Warren's announcement of last December concerning the reintroduction of his compulsory health insurance scheme has now borne fruit and Senate Bill 788 and Assembly Bill 1500, companion measures, are formally before the Legislature. With their introduction there has again been unleashed the propaganda technique which became so familiar two years ago on the 1945 version of this plan.

The words "propaganda technique" are used advisedly, principally for the reason that the truly unbiased observers of health insurance plans admit that they are groping in the dark in assaying such measures. The body of information available is still incomplete; its content suggests so many variations of practice and philosophy that a discussion becomes extremist on both sides.

On his side the Governor has available the power of his official office, an office which gives him constant contact with the press on a basis where the very prestige of his position lends weight to his words. On the side of the physicians, the only public information avenue open is through professional public relations consultants. It is obvious that both sides have already used and will continue to use the methods at their disposal.

On a broad basis the Governor's appeal is directly to the people, with pathos, human interest, emotionalism and big-hearted government as the keys used to unlock hearts and votes. The doctors can use nothing but cold logic, scientific knowledge and practical experience in presenting the opposition. The doctors start out behind scratch for the simple reason that it is difficult to tell people that they cannot have something which someone else is offering in attractive dress. Who can find the man who doesn't want to accept something for nothing?

With this situation in existence, the words of a recent speaker before a group of California physicians take on a particular significance. In effect this speaker told his listeners: "The proponents of compulsory health insurance are having a field day telling people what is going to be given to them; it is about time you doctors told the people what would be taken away from them under such a scheme."

The people most certainly have the right to know what price they must pay for a social measure held out as benefiting them. Perhaps they want to decide for themselves whether or not the service is worth the cost. For instance, do the people want compulsory health insurance if it means they will lose the services of the doctors of their own selection? Do they want socialization in the distribution of medical service, with the attendant red tape

and form-filling-out that goes along with governmentalization of anything? Do they want to pay their health care dollars to a horde of bureaucrats instead of their own doctors?

Do the people want to have their own doctors taken away from them? Do they want to have their own freedom of movement, their own independence of action in seeking medical care taken away? Do they want to have taken away the limitless services which they may now seek, in favor of an OPA approach of scarcity? Above all, do they want to have taken away the high quality of medical skill which is now available to them?

These are some of the questions which the people of California will want to answer to their own satisfaction before they embrace a glittering generality in the form of a compulsory health insurance scheme. These are some of the questions to which they have the right to demand answers from those responsible for drafting and introducing this legislation.

The California Medical Association has assumed the role of leader of the forces opposing Governor Warren's bills. There are many other opponents, in fact an increasing number, but it falls to the lot of the organized physicians to spearhead the attack. In this connection the C.M.A. can promise to the people of California that the answers to these and many more questions will be supplied. After that it is up to the people to decide the case on its own merits. The C.M.A. does not fear that decision.

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Clinical-Pathological Conference*

Case History: V. H., a white female, aged 83 years, entered the hospital with the complaint of having had a sudden onset of severe abdominal pain two days previously, associated with nausea and vomiting. The patient, not being mentally clear, could not further describe the character of the pain. She was given laxatives and prostigmine by a physician at home without relief of pain or production of bowel movement except for passage of a small amount of gas after the prostigmine. The patient stated that she had had similar episodes in the past three or four years but that the severity was not as great and relief was obtained with cathartics.

Physical Examination: On admission to hospital, temperature was 98.8°, pulse 90, respiration 20, blood pressure 148/80. The patient appeared acutely ill and in severe pain. She was semi-comatose. Vomiting was frequent. Other positive physical findings included bilateral cataracts, advanced arteriosclerotic changes in fundi, slight cardiac enlargement, morbid sclerosis of the peripheral arteries and occasional fine moist rales at each lung base. The abdomen was moderately distended but not rigid, there was generalized tenderness but peristalsis was absent, and no organs or masses were palpable.

Laboratory Examinations: The Hemoglobin was 17.5 grams, erythrocytes numbered 5.05 million, WBC numbered 12,900, with 80 per cent neutrophiles (25 per cent of which were non-filamented), 17 per cent lymphocytes, and 3 per cent monocytes. Urinalysis revealed albumin 2 plus, 30 to 40 white blood cells per high power field, occasional red blood cells and no casts. The blood amylase value was 580 units and that for urinary diastase was 8 units. Roentgenogram of the abdomen in the upright position showed definite evidence of dilated loops of small bowel occupying the lower half of the abdominal cavity. Several fluid levels were seen in the small bowel. Very little gas was noted in the colon.

Clinical Course: Intravenous fluids, mild sedation and a blood transfusion were administered, and a Miller-Abbott tube was passed. On the first day after admission, the abdomen was fairly flat and less tender. Foul smelling, bile stained fluid was drained from the tube. The patient occasionally vomited 30 to 90 cc. of similar fluid. Occasional peristalsis was heard. The urinary diastase was 64 units. The temperature fluctuated between 96.6° and 100.2°. On the second day the patient clinically improved. The abdomen was soft and not tender. Small amounts of gas were passed by rectum. The temperature varied from 99.6° to 100.8°. On the third day the abdomen was flat, soft and not tender. Occasional peristaltic sounds were heard. The tube was removed but had to be re-inserted because of nausea and vomiting. The NPN was 60 mg. per cent, plasma chlorides 277 mg. per cent, creatinine 2.2 mg. per cent, WBC numbered 6,850 per ccm. (80 per cent neutrophiles, of which 33 per cent were non-filamented). The temperature was from 99° to 100°. The abdomen remained soft and flat but the patient continued to appear exhausted. The amylase values returned to normal but blood nitrogen levels remained elevated. A small brown stool was passed.

Subsequently the patient failed to improve, despite continued suction. The abdomen remained soft and non-tender. Intravenous fluids and transfusions were given. Death occurred on the eleventh hospital day.

* From St. Vincent's Hospital, Los Angeles.

CLINICAL DISCUSSION

Dr. Louis C. Bennett: In this differential diagnosis one must consider the more serious conditions commonly encountered in the practice of geriatrics. From the limited information available this would include pneumonia, coronary thrombosis, intra-abdominal vascular accident, intra-abdominal malignancy, acute appendicitis, acute pancreatitis and diverticulosis with a superimposed diverticulitis and the complications therefrom. The final diagnosis must include: (1) The cause of the patient's illness, and (2) The cause of the patient's death.

Coronary thrombosis must be considered because of the patient's age, the arteriosclerosis noted in the fundi and the peripheral vessels, the suddenness of the onset and the associated severe prostration. It is generally known that the pain of coronary thrombosis may be predominantly abdominal. The abdominal distention and absence of peristalsis could have been manifestations of an associated adynamic ileus. The leukocytosis and low grade fever are in keeping with coronary thrombosis. However, the systolic blood pressure upon admission was 148 mm. of mercury and the diastolic pressure was 80 mm. of mercury. Although we have no record of the blood pressure during health, these figures do not represent any serious degree of circulatory collapse. With no actual evidence of circulatory collapse upon or subsequent to admission, it seems unlikely that the illness could have been due to a fatal coronary thrombosis.

Pneumonia, referred to by Osler as "the friend of the aged because they are taken off by it in an acute, short, not often painful illness," could have been responsible for this death. It is not uncommon that the early predominant symptom of pneumonia is abdominal pain. Nausea and vomiting are common in pneumonia, as is severe prostration and irrationality. Again the abdominal distention, the absence of peristalsis and the x-ray finding of distended small bowel might represent a secondary adynamic ileus. The degree of leukocytosis with the elevation in the non-filamented neutrophiles could very well be the blood picture of an overwhelming pneumonic infection in a patient with low resistance to that infection, and the urinary findings could be secondary to the toxemia of pneumonia.

Against the diagnosis of pneumonia of sufficient extent to explain the patient's initial illness is the respiratory rate of 20 per minute and the fact that the lungs were found clear, except for an occasional moist rale at each base which one might expect in an individual of this age who had been in bed for two days. Also against pneumonia is the fact that the abdominal symptoms persisted throughout the illness, and that no mention is made of dyspnoea or cyanosis. From the information at hand it seems very improbable that pneumonia could have been the primary illness, although a secondary bronchopneumonia must, of course, be seriously considered as a contributing cause of death.

Under vascular accidents one must consider mesenteric thrombosis and dissection or rupture of or aneurism of the abdominal aorta.

A diagnosis of mesenteric thrombosis seems possible because of the suddenness and severity of the attack in an elderly arteriosclerotic individual. The history of previous similar episodes could be explained by progressive sclerosis of the superior mesenteric artery, with the fact that the episodes were relieved by cathartics left unexplained by this theory. The laboratory findings, including the elevation of the blood amylase and urinary diastase, could all have been secondary to such a vascular accident. The x-ray findings might be considered in keeping with this diagnosis. The progressive downward course and fatal outcome could be explained by an overwhelming peritonitis secondary to mesenteric thrombosis. However, the absence of peristalsis upon admission and the absence of blood in the stools leave two of the most constant findings in mesenteric thrombosis lacking. These, plus the fact that the patient lived for eleven days, seem to rule out mesenteric thrombosis as the cause of the patient's illness.

Abdominal aneurism with dissection or perforation must be mentioned under vascular accidents, although there is little to support the diagnosis. Aneurism is commonly found in the third to the fifth decade and is usually fatal before the age of this patient is reached. It is a condition much more common in males than in females. An important symptom of dissecting aneurism is pain, and upon perforation it is rapidly fatal. In the absence of a palpable tumor and with no evidence of intra-abdominal hemorrhage, the diagnosis of abdominal aneurism is dismissed.

Intra-abdominal malignancy must always be considered in a patient of this age. Malignancy of the colon with sudden onset of obstruction or perforation might explain the onset of the illness, and could give this clinical and laboratory picture. However, the history of similar episodes for the past three or four years is not in keeping with the usual history of malignancy of the colon. From the daily observations of the patient's course in the hospital one does not get the impression that she had an obstruction of the colon. There was certainly insufficient evidence of intestinal obstruction to cause one to suspect the complication of generalized peritonitis on the basis of prolonged unrelieved distention of the bowel. An uncomplicated organic obstruction of the colon on the basis of malignancy would explain neither the severe prostration at the onset nor the patient's clinical course. She was relieved some by the Miller-Abbott tube in 24 hours. She passed "gas" on the second hospital day and a "small brown stool" on the fifth day. This is not in keeping with obstruction of the colon of sufficient severity to explain this illness. Malignancy of the pancreas must be mentioned, but the sudden onset, the rapid course and the absence of jaundice seem to rule it out.

Acute appendicitis with perforation and generalized peritonitis must be considered and since it was not possible to obtain a detailed history of the onset, character and localization of the pain, I do not believe this diagnosis can be completely eliminated. Although appendicitis in the aged is rare, it does occur even at 83 years of age. Recurrent acute appendicitis would explain the repeated previous similar episodes. Two days had elapsed between the onset of the abdominal pain and the admission to the hospital. The onset of the pain was accompanied with nausea and vomiting which are characteristic of acute appendicitis. With the lapse of 48 hours, plus the influence of the laxatives and the prostigmine, the complication of a generalized peritonitis secondary to gangrenous or perforated appendicitis could have been present upon admission, and would very well explain the entire illness up to that date; the picture being that of an overwhelming infection in which one would expect an early fatal termination. One would not expect the patient to live for 11 days after admission with such a picture. Chiefly on this basis it would seem unlikely that appendicitis and the resultant complications were the causes of the illness and death, although from the available information it is impossible completely to dismiss these diagnoses.

The diagnosis of acute pancreatitis is suggested, more by the laboratory findings than by the history and clinical findings. Pancreatitis may occur in any degree, and may subside and recur. This also would explain the previous attacks. The sudden onset of the attack might well have been the beginning of an acute fatal pancreatitis. A few years ago the elevated blood values of pancreatic enzymes would have been accepted as diagnostic of acute pancreatitis. However, it is now generally accepted that these values may be markedly affected in other serious intra-abdominal conditions, and that they are not diagnostic of diseases of the pancreas. Although the history lacks detail, no mention is made of any evidence of shock, or of the typical back radiation of the pain that is common in pancreatitis. These two symptoms are of great importance in the diagnosis and both are lacking. Fatal acute pancreatitis is usually more rapidly fatal than was this illness. Therefore, in spite of the pancreatic enzyme blood values, the diagnosis of acute pancreatitis seems improbable.

Diverticulosis of the intestinal tract, usually of the colon, is an affliction that is common in the aged. The typical course is one of recurrent exacerbations of acute diverticulitis superimposed upon the chronic process, with remissions that may leave

the patient symptom-free for variable periods. The serious complications that occur during the acute exacerbations are mechanical obstruction, either in the colon or in loops of adjacent small intestine that become involved in the inflammatory process, or both, and perforation with localized abscess or generalized peritonitis with secondary adynamic ileus. During an acute attack it is frequently difficult to distinguish between these complications. The differentiation is best made by following the patient's clinical course closely from the beginning of the attack with frequently recorded auscultatory examinations of the abdomen. Although the first recorded examination of this patient was made two days after the onset of the attack, the diagnosis of chronic diverticulosis complicated by acute diverticulitis with perforation, peritonitis and associated ileus would best explain her illness. The patient was certainly in the "diverticulosis age." This diagnosis explains the previous similar attacks.

That these attacks were relieved by cathartics is probably best explained by the fact that many patients still empirically take cathartics for abdominal pain, plus the good fortune that no perforation occurred during the attacks. Some degree of peritonitis, possibly with some attempt at walling off, would explain her physical findings and her critical condition upon admission. The pancreas may or may not have been involved in the inflammatory process. The ileus would explain the distention, the x-ray findings and the apparent relief by intestinal intubation decompression. That there was some subsidence of the ileus is manifested by the "occasional peristalsis heard" on the first and third hospital days and by the passing of gas per rectum. However, three days of decompression is insufficient management in severe adynamic ileus, therefore the recurrent nausea and vomiting and the necessity for reinsertion of the Miller-Abbott tube. From the daily recorded examinations of the abdomen there was decreasing evidence of peritonitis, but the patient did not improve. This might mean decreasing resistance to the infection, or some additional complicating factor. Upon admission the urine contained two plus albumin, 30 to 40 white blood cells per high power field and occasional red blood cells. On the third day the non-protein-nitrogen was elevated to 60 mgm. per 100 cubic centimeters of blood and the creatinine was two and two-tenths mgm. per 100 cubic centimeters of blood. The note on the fifth day states, "nitrogen levels elevated." The total daily volume output of urine and the microscopic findings of the urine would be of considerable interest at this point. However, there is sufficient laboratory evidence of azotemia to indicate that the patient was developing progressive renal failure; the mechanism being, no doubt, that of an acute toxic nephritis, or nephrosis, superimposed upon old arteriosclerotic kidneys. In addition to this, one would almost certainly predict terminal bronchopneumonia in this patient.

Clinical Summary: 1. Chronic diverticulosis, probably of the colon, with acute diverticulitis and perforation. Contributing causes of death were: 2. Generalized peritonitis; 3. Acute toxic nephritis, or nephrosis, superimposed upon the old arteriosclerotic kidneys and, 4. Terminal bronchopneumonia.

PATHOLOGIST'S DISCUSSION

DR. J. E. KAHLER: In spite of the patient's soft, flat, non-tender abdomen, gas escaped when the peritoneum was incised, and the abdominal cavity contained about 500 cc. of thick brown exudate having a foul fecal odor. At a point 110 cm. above the ileocecal valve, the ileum was tightly incarcerated in a femoral hernial sac which lay beneath Poupart's ligament and approximately 4 cm. lateral to the symphasis. The sac itself was only 2 cm. in depth and had a very narrow orifice so that it could be everted only when Poupart's ligament was trans-sected. The bowel at the point of incarceration had the definite "T" shape of a Meckel's diverticulum, the base of the "T" representing the mesenteric portion with a functional, though small, lumen remaining outside the hernial sac. Just within the orifice of the sac, on the proximal edge of the diverticulum, there was a small perforation the edges of which were everted, red and granular as though having existed for some time. There was purplish discoloration of the bowel wall around this point. The mucosa of the diverticulum was smooth, viable and contained no ectopic elements. The tip of the diverticulum could not be separated from the point of the sac by blunt dissection, suggesting that the incarceration had been present for a long time and that this same hernia had caused the previous episodes of abdominal pain.

Doctor Bennett is to be congratulated upon his analysis of the case. His final diagnosis is incorrect only in the position of the diverticulum. It is noteworthy that he was not misled into diagnosis of acute pancreatitis by the high blood and urine amylase values. Small bowel obstruction is only one of many conditions within the abdomen which can product a high amylase without a lesion of the pancreas or other salivary glands. This patient's pancreas was normal both grossly and microscopically. The small bowel was considerably dilated above the diverticulum. Bronchopneumonia was not present. The kidneys were of the arteriosclerotic type with superimposed acute degenerative changes associated with the peritonitis.

Anatomical Diagnosis: Generalized peritonitis due to perforation of a Meckel's diverticulum incarcerated in a right femoral hernia.

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FOR COMPLETE ROSTER OF OFFICERS, SEE ADVERTISING PAGE 4

NOTICES AND REPORTS

NEWS *of the* DAY *in the* C.M.A.

February 5—Executive Committee meets in evening session, discusses problems of the day and sends members home at 11:30. A little more docket cleared up for coming Council meeting.

February 6-7—Various gatherings these days for Annual Session program. All indications point to excellent program and record attendance. Greatest shortage still in hotel rooms, which for some reason unknown to hotel men are still in tremendous demand. Office regretfully notifies many applicants that Biltmore Hotel has allotted C.M.A. only so many rooms and these are hardly enough to house officers, guest speakers, delegates, etc. Other hotels in Los Angeles cooperating nicely with Chamber of Commerce in housing C.M.A. members for session period.

February 9—Legislative meeting in Los Angeles. Plans laid for meeting Governor Warren's 1947 version of foot-in-the-door health insurance. Nobody yet able to figure out why the Governor stresses hospitalization and makes it easier for all people to get into hospitals when there is admitted shortage of hospital beds. Sounds like good politics rather than good medical care.

February 12—Covering two bases at once today. San Francisco Bay Area Councilors and officers of local society meet with Dr. Walter Judd, prominent member of Congress from Minnesota and outspoken Republican champion of free enterprise, particularly in distribution of medical care. In San Francisco for formal address at Lincoln Day dinner, Dr. Judd told medical group with all his accustomed vigor and style that medical profession must carry story to the people of what would be taken away from them in state or national compulsory health insurance plan. If we only had 434 more members like him in Congress!

In Los Angeles, legal counsel and medical representative meet with Social Security Committee of California State Chamber of Commerce. This committee two years ago took stand for voluntary and against compulsory health insurance and board of directors of State Chamber adopted that report. Comes now the 1947 chance on same issue and result remains the same. State Chamber of Commerce, by action of board of directors, approves voluntary and opposes compulsory.

February 13—Executive secretary off to New Mexico to confer with directors of New Mexico Physicians' Service re prepayment plan.

February 14-15—More stacks of bills coming in from Sacramento. State printer reported busiest man in county. Another 1500 bills yet to come. Complete file will make altitude of more than 36 inches; lots of reading here and lots of assorting, with estimated 10 per cent of bills containing some medical or public health aspect.

February 18—Back from New Mexico. Plan there progressing but faced with small potential and problem of meeting costs and continuing service for relatively small group that wants and needs service. C.M.A. has been behind New Mexico plan from outset and believes it necessary as one state's contribution to nationwide system of medically-sponsored prepayment policy.

February 19—Conference today with John Rooks, executive secretary of California State Dental Association and legislative representative of joint legislative committee of that organization and Southern California State Dental Association. Formerly secretary of the Alameda Chamber of Commerce, Rooks has entered into Sacramento situation with gusto and dental interests seem well in hand. This is good for physicians inasmuch as medical-dental interests are pretty much alike.

February 20—Copy prepared for first 1947 issue of "Legislative News." This publication will again be sent to all C.M.A. members during issue of compulsory health insurance. Members have found many helpful items in this leaflet in past and it is hoped new issues will be similarly beneficial.

February 22—Office closed today for Washington Birthday holiday. Weatherman obligingly furnishes delightful spring day. Office staff expected back Monday with usual assortment of sunburn, poison oak, horseback stiffness and other vacation ills. One student flyer hopefully expected back Monday.

February 24—No casualties. Three-day mail collection promises busy time for all, despite spring weather. Transportation problems besetting part of office; why is it so hard to get to Los Angeles and back on the *Lark?* Probably same question being asked today in 8,379 other offices in the city. If only we had a pneumatic tube service, operating both ways.

In Memoriam

BREUER, CHARLES HUGH. Died December 18, 1946, at San Jose, age 81. Graduate of Crieghton University School of Medicine, Omaha, Nebraska, 1896. Licensed in California in 1924. Doctor Breuer was a Retired Member of the Santa Clara County Medical Association, and the California Medical Association.

✣

DEARBORN, RAY RUSSELL. Died of a heart attack at Madera, December 29, 1946, age 58. Graduate of the University of Vermont College of Medicine, Burlington, 1911. Licensed in California in 1913. Doctor Dearborn was a member of the Fresno County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✣

ELLSWORTH, ALICE BARKER. Died January 7, 1947, at Long Beach, age 76. Graduate of the University of Michigan Medical School, Ann Arbor, 1902. Licensed in California in 1922. Doctor Ellsworth was a Retired Member of the Los Angeles County Medical Association, and the California Medical Association.

✣

FARMER, JOHN LEE. Died January 10, 1947, at San Diego, of cerebral vascular accident due to chronic hypertension and myocarditis, age 52. Graduate of Baylor Medical College, Dallas, Texas, 1918. Licensed in California in 1931. Doctor Farmer was a member of the San Diego County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✣

GOLDBERG, MILTON. Died at West Los Angeles, December 10, 1946, age 35. Graduate of the University of Minnesota Medical School, Minneapolis, 1936. Doctor Goldberg was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✣

JONES, ISAAC WILLIAM. Died December 23, 1946, at Los Angeles, of a heart attack, age 70. Graduate of Kentucky School of Medicine, Louisville, 1904. Licensed in California in 1912. Doctor Jones was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✣

MOCK, BYRON FAY. Died January 3, 1947, at San Diego, of coronary occlusion, age 47. Graduate of the University of Pennsylvania Medical School, Philadelphia, 1925. Licensed in California in 1930. Doctor Mock was a member of the San Diego County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✣

NITTLER, ADOLPH NICHOLAS. Died October 10, 1946, at Santa Cruz, of chronic rheumatic endocarditis and chronic parenchymatous nephritis, age 60. Graduate of the Oakland College of Medicine and Survery, 1909. Licensed in California in 1909. Doctor Nittler was a member of the Santa Cruz County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

PIUS, CHARLES. Died December 9, 1946, at Yreka, of coronary occlusion, age 63. Graduate of the Cooper Medical College, San Francisco, 1906. Licensed in California in 1906. Doctor Pius was a member of the Siskiyou County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✣

PRITCHARD, FRANK HIRAM. Died December 30, 1946, at Colton, of cerebral arteriosclerosis, age 79. Graduate of Boston University School of Medicine, Massachusetts, 1889. Licensed in California in 1903. Doctor Pritchard was a member of the San Bernardino County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✣

ROTHWELL, WILLIAM THOMAS. Died January 19, 1947, at Riverside, of coronary thrombosis, age 62. Graduate of the University of Illinois Medical School, Chicago, 1910. Licensed in California in 1910. Doctor Rothwell was a member of the Riverside County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

In appreciation of Dr. Harold Philips Hill

Doctor Harold P. Hill died on the last day of the year 1946. Few doctors will be so widely and so deeply mourned. Many persons in the San Francisco Bay region will feel shaken and unsteady at the loss of their trusted adviser and best friend, a pillar upon whom they could lean, a comforter to whom they could turn in time of trouble. Many persons, many families, scattered with the years over the four quarters of the globe will miss that quiet, patient, attentive man to whom they could pour out their complaints, their worries and their grief, and in whom they could find a wise and understanding counselor.

Doctor Hill, or "H.P.," as he was known to his friends, was born in Waterbury, Vermont, in 1877. His father was a doctor, who moved to California from Vermont in 1887, practiced and lived in Redlands, and died there in 1927. Doctor Hill was graduated from Stanford in 1898 and from the University of California Medical School in 1901. He was interne and afterwards resident at St. Luke's Hospital. There he was one of a tennis-playing quartet, which included Doctors William G. Moore, George McChesney and Sumner Hardy. From 1902 to 1906 he was instructor in Physiology at the University of California Medical School, practicing medicine at the same time. He left the University of California for Stanford during the days of Walter Hewlett, becoming Assistant Clinical Professor of Medicine in 1907. For years he was Chief of the Stanford Medical Service at the San Francisco Hospital, but retained a constant interest in St. Luke's. Chief of the Medical Service and Chief of Staff at St. Luke's for many years, he helped to set its high standards of nursing and medical practice.

He married a daughter of his old friend, Doctor Clark Burnham of Berkeley; he leaves her, their three children, and a brother and two sisters, Doctor Howard Hill and Miss Edith Hill of Redlands, and Mrs. F. R. Lanagan of Denver.

Doctor Hill united in rare adjustment all the gifts that go to make a good doctor: a most logical and direct mind, attentive to details but not distracted by them, which picked out essentials and weighed facts with uncommon perspicacity; a quiet and forebearing understanding, together with a silent receptiveness that made it easy for people to open their lives to him and trust him; an extraordinary memory for his patients' ailments, so reten-

tive and accurate that it often astonished the patients themselves; an absolute regard for truth and an unswerving unwillingness to compromise what he looked upon as right and just. It was good to see him at the sickbed; neither solemn nor loquacious or jocose, but quiet, steady, forthright, attentive and reassuring, with an occasional smile and a little laugh when he thought that one was in place.

His pleasures were few and simple, tennis and golf in his more active days, later a little fishing. His life was ascetically and undivertedly a doctor's; like an artist or a musician, he lived his profession during all his working hours. Where others might find pleasure or excitement in a successful shot at golf, or at a jolly party or in a political campaign, he cared for nothing but his profession and found his satisfaction in an abstruse diagnosis prettily solved or in a patient returned to him after long, fruitless wanderings elsewhere.

Many a sick person will stretch his arms out for you in vain, H.P., and wish that your tall, spare, big-boned figure, your green-blue eyes, your big forehead with its scanty hair, once sandy and wind-burned, your tight lips breaking into a smile of recognition and your reassuring, helpful hands might appear in the frame of the sickroom door and be again at his bedside. You were a good friend to me and mine, as you were to countless others. God bless you, faithful H.P. May you rest easy and the grass lie softly on your grave.

L. Eloesser.

(The above tribute to a distinguished physician was mailed to your Secretary from Nanking on January 15, 1947. The depths of friendship and appreciation are not often sounded in such manner. We think the world must know that many feel the qualities in H. P. H. that L. E. most admired are those with which he too is well endowed . . . and those whose fortune is to know such men, know history.—L.H.G.)

76th Annual Session
California Medical Association
Los Angeles
April 30—May 3, 1947

For hotel reservations, write Convention Department, Los Angeles Chamber of Commerce, 1151 South Broadway, Los Angeles, Calif.

NEWS and NOTES

NATIONAL • STATE • COUNTY

ALAMEDA

The staff of **Alta Bates Hospital,** Berkeley, has been reorganized following a recent change in management, with Dr. Grant Ellis as staff president, Dr. Woodburn K. Lamb as vice president and Dr. Arthur H. Rice as secretary-treasurer. In conformity with policy of the American College of Surgeons, the hospital is **to be departmentalized,** with general practitioners classified under services in which they are particularly skilled or under the heading of general practice.

CONTRA COSTA

Contra Costa County Medical Society and auxiliary members met recently at the home of **Dr. H. D. Neufeld** in Concord. At the meeting, **Dr. W. R. McCarthy** of Oakland, executive medical director of the Cancer Commission for the California Medical Association, discussed the advances made in treatment and study of the disease.

LOS ANGELES

Dr. Stafford L. Warren, who on February 1 began his duties as dean of the new medical school which is to be organized on the Los Angeles campus of the University of California, is at present assembling a faculty and staff and supervising plans for a new 500-bed university hospital and other buildings for the school.

Appointment of the new dean, formerly **professor of radiology** at the University of Rochester School of Medicine and Dentistry, and during the war chief of the medical division for the entire atomic bomb project, was announced last January by Robert Gordon Sproul, president of the University of California. He had been nominated for the post by Provost Clarence A. Dykstra of the Los Angeles campus and an all-university medical committee of which Dean Emeritus R. Langley Porter and Dean Francis S. Smyth of the university's medical school are members.

Dr. Warren, who was a member of the University of Rochester Medical School faculty for 21 years, will be **professor of biophysics** as well as dean of the new UCLA medical school. The school, to be designed for a student body of 300, is expected to be ready for its first students in 1948 or 1949.

In announcing the appointment, Dr. Sproul said: "Dr. Warren is eminently qualified for the task for which he has been chosen. He has made notable contributions to medicine in radiology and other fields, and his work on the atomic bomb project was of inestimable value to the nation. The fact that Dr. Warren also is a **graduate of the University of California** should be a source of pride and satisfaction to the people of the state."

Dr. Warren was graduated from the Berkeley campus of the University of California in 1918, and received his M.D. degree from the University of California Medical School at San Francisco in 1922. After graduation he served as assistant in pathology at the Johns Hopkins Medical School, as medical interne in the Massachusetts General Hospital, and as resident physician in Huntington Memorial Hospital, Boston.



DR. STAFFORD L. WARREN

His present appointment marks the second time in his career that he has allied himself with a new medical school. He joined the University of Rochester School of Medicine and Dentistry as an assistant professor of medicine in 1926, one of the original group of men assembled by Dean George H. Whipple for the school, which accepted its first class of students that year. Dr. Warren rose to associate professor four years later, became full professor of radiology in 1939. He also has served as radiologist-in-chief at Strong Memorial Hospital, teaching hospital of the Rochester School of Medicine and Dentistry.

Given a leave of absence in 1943 to serve with the Manhattan District as a colonel in the U. S. Army, Dr. Warren directed the organization of the **atomic medical research** at the University of Rochester be-

fore taking over the task of directing the medical division for the nation's vast atom bomb project. He was a key figure at the first atomic bomb test in New Mexico, and later was sent on a mission to Nagasaki and Hiroshima to study the effects of the bombs dropped on Japan.

Last summer, as head of the radiological safety task force. Dr. Warren was the man primarily responsible for the safety of the 42,000 participants in the atom bomb tests at Bikini Atoll. Major General Leslie R. Groves, head of the Manhattan District, presented Dr. Warren the **Distinguished Service Medal** on November 3, 1945, for his outstanding part in the atomic bomb development. Dr. Warren's terminal leave from the U. S. Army ended on November 10, 1946.

His distinguished reputation is not based solely on his work for the atomic bomb project. He was well-known before the war for is work in radiology, was credited with pioneering a technique known as "fever treatment" for the cure of gonorrhea, and made important contributions to **cancer research.** He served for many years as special consultant to the U. S. Public Health Service.

Dr. Warren is a member of many **scientific and professional organizations** including Sigma Xi, Alpha Omega Alpha, Phi Chi, the American Neisserian Medical Society, the American Society for Cancer Research, the American Association for Clinical Investigation, and American Association for the Advancement of Science, the American Medical Association and others. He has written more than 100 scientific papers on medical subjects.

A native of Maxwell City, New Mexico, Dr. Warrent is a former resident of Hayward, California. At 50 years of age he is of impressive physical stature, standing six feet four. His wife is the former Viola Lockhart of Santa Rosa, California, who also attended the University of California and whom he married when he was a medical student in 1920. They have a daughter and two sons: Dean S., 19, now a pre-medical student at the University of Rochester; Roger W., 18, a sophomore at Rochester where he is majoring in physics, and Mrs. Jane (Fred C.) Uffleman, of Oak Ridge, Tennessee.

Dr. Tracy Comstock, recently discharged from the Army Medical Corps, is assisting Dr. Robert Reid in Perris while Dr. Reid convalesces from injuries received in an automobile accident. Dr. Comstock, who is a graduate of the College of Medical Evangelists, studied at both Loma Linda and White Memorial in Los Angeles.

Dr. Edson Hun Steele, recently returned from Naval service, has announced the reopening of his office at 305 South Westlake Avenue, Los Angeles.

Dr. William F. Reasner, veteran Santa Monica district health officer, retired from office at the end of February. He had been associated with the Los Angeles County Health Department since 1927.

Dr. Benjamin N. Anderson, recently discharged from military service, is once more associated with the Elmer Thompson Medical group, located at 146½ San Fernando Rd., **Burbank.** Since his release from service, Dr. Anderson has done post-graduate work at Iowa University Hospital and Cook County Graduate School of Medicine, Chicago.

Dr. William D. Mapes, who has recently been discharged from the Army Medical Corps, has become associated with **Dr. Paul Witten** in San Fernando. Dr. Mapes received his training at the University of Colorado Medical School.

Dr. Tracey Powell has been elected president of the **Hollywood Academy of Medicine** succeeding Dr. Nichol R. Smith. Dr. Charles Gilfillan has been named vice-president and Dr. Walter Scott, secretary-treasurer.

ORANGE

Dr. Arthur Trevenning Harris, Laguna Beach physician and surgeon who served as a captain in the Army Medical Corps during the war, has purchased property at 4635 Ledge Avenue, in **North Hollywood,** where he will engage in the general practice of medicine.

SAN FRANCISCO

Dr. Robert S. Stone, professor of radiology and chairman of the department of radiology in the University of California Medical School, has been elected an honorary fellow of the College of Physicians of Philadelphia.

Dr. Anthony J. J. Rourke, physician-superintendent and director of out-patient clinics, Stanford University Hospitals, and associate professor of hospital administration, has been appointed president of the **San Francisco Hospital Conference.**

Relatively low pay and unattractive working conditions are given by Dr. J. C. Geiger, San Francisco Director of Public Health, as the principal reasons for the **acute shortage of nurses** in the San Francisco Department of Public Health. In a report on the shortage, Dr. Geiger says that correspondence with nurses as well as his own investigations show that the pay rates are below those in health departments in other comparable communities for jobs considered to be the very hardest and most hazardous type of nursing. Moreover, pay for City-County employment is less than for more attractive work in private hospitals. In making comparisons of working conditions in the San Francisco Hospital with those in private hospitals, nurses among whom Dr. Geiger made a survey cited the **scarcity of labor-saving devices,** antiquated equipment, and lack of unskilled workers who could do much of the work which highly trained nurses are called upon to do.

Stanford University School of Medicine's 65th course of **Popular Medical Lectures,** which began March 7 will continue with Friday evening meetings through April 25. The schedule of lectures, with the **names of speakers,** follows: March 7, "New Eyes for Old: Corneal Transplants," Max Fine, M.D.; March 21, "The War on Cancer," David A. Wood, M.D., L. Henry Garland, M.D., Leonard G. Dobson, M.D.; April 11, "Delinquency and Mental Health in a Changing World," Hale F. Shirley, M.D.; April 25, "Contagion from Foreign Lands," Rodney R. Beard, M.D.

The University of California Medical School, under sponsorship of University Extension (Medical Extension), University of California, next fall will offer the following **postgraduate courses** to qualified practicing physicians: Postgraduate Course in Obstetrics and Gynecology, September 1 to 5, inclusive; Postgraduate Course in Otorhinolaryngology, September

8 to 12, inclusive; Postgraduate Course in Ophthalmology, September 15 to 19, inclusive. These are continuation courses for general practitioners of medicine. The subject matter will consist of clinical case demonstrations, discussions on the newer methods of diagnosis, and of medical and surgical treatment.

Requests for further information should be sent to **Stacy R. Mettier,** M.D., Head of Postgraduate Instruction, Medical Extension, University of California Medical Center, San Francisco *22,* California.

TULARE

Dr. C. S. Ambrose, Visalia physician, who recently accepted the post of health officer of Tulare County, will give up his private practice. Dr. Ambrose succeeds **Dr. Charles C. Hedges.**

A 40-hour week for nurses and office personnel at the **Tulare County Hospital** has been approved by the County Board of Supervisors. Hiring of additional personnel, including five nurses' aides, also was approved.

YUBA

Dr. Paul C. Cress has been named to serve temporarily as county physician of Yuba County to fill the post which **Dr. William Vasques** resigned February 1 to resume private practice. Dr. Cress will serve on a month-to-month basis until a permanent appointment can be made.

GENERAL NEWS

The third annual convention of the **American Society for the Study of Sterility** will be held at the Hotel Strand, Atlantic City, New Jersey, on **June 7 and 8, 1947,** preceding the annual A.M.A. Convention. The general theme of the meetings will be that of attempting to disseminate to the physician treating marital infertility an overall picture of the latest advances in reproduction. The program will include original papers, round table discussions, scientific exhibits, and personal demonstrations. Registration for the sessions is open to members of the medical and allied professions.

Additional information may be obtained from the secretary, **Dr. John O. Haman,** 490 Post Street, San Francisco 2, California.

Dr. John Dunnington, professor of Ophthalmology at Columbia University, New York City, and **Dr. George Shambaugh,** professor of Otolaryngeology at Northwestern University, Chicago, will be guest speakers at the Eighth Annual Spring Post Graduate Course in Ophthalmology and Otolaryngology to be given in Portland, April 7-12, by the **Oregon Academy of Ophthalmology and Otolaryngology.** The program includes lectures, clinical demonstrations and ward rounds. Further information may be had from Dr. Harold M. U'Ren, Secretary, 1735 N. Wheeler Ave., Portland 12, Oregon.

The Third American **Congress of Obstetrics and Gynecology** will be held September 8-12, 1947, in St. Louis. Program of the Congress is designed not only for specialists but for general practitioners, nurses and all those interested in care of mothers and new born babies. It is being arranged by Dr. A. W. Diddle of Dallas as general program secretary. Program sub-sections are being developed by section chairmen. Dr. Ralph A. Reis of Chicago heads the Medical sub-section and is assisted by Dr. John I. Brewer of Chicago. **Dr. Herbert F. Traut,** San Francisco, is chairman of the Medical Educator's sub-section, and Dr. S. A. Cosgrove of Jersey City heads the Hospital Administration sub-section. A scientific and educational exhibit is being arranged by a committee of which Dr. J. P. Pratt of Detroit is chairman and **Dr. Ludwig Emge** of San Francisco and Dr. Frank E. Whitacre are members. Those who are not members of the Congress but who wish to attend may apply for membership by writing to the American Congress of Obstetrics and Gynecology, 24 West Ohio St., Chicago 10, Illinois.

Questionnaires to be used as a basis for determining how best to provide **civilian medical care** in event of another national emergency have been sent by the Committee on National Emergency Service of the A.M.A. to 5,000 physicians who passed the recent war years in civilian practice. Aim of the questionnaire is to develop facts as to how the civilian population was served during the war and to give the doctors who were responsible for civilian care in those years an opportunity to indicate what changes they believe should be made in the mobilization of medical service in future emergencies.

Pointing out that its extensive **services to the war wounded,** to the troops still overseas and to the veterans who have come home to unexpected emergencies must be continued, the **American Red Cross** this month has under way its drive for a national fund of $60,000,000. Announcement of the campaign said that, in addition to the war-connected services, the growing accident rate in this country makes it necessary that the Red Cross be ready wherever disaster may strike.

Psychosomatic Medicine, the bi-monthly journal sponsored by the American Society for Research in Psychosomatic Problems, Inc., will be published by Paul B. Hoeber, Inc., Medical Book Department of Harper & Brothers, New York, beginning with the issue for January-February, 1947. **Doctor Flanders Dunbar** of New York is Editor-in-Chief of the journal, and Doctor Edward Weiss of Philadelphia is president of the society for the current year.

This journal, founded in 1939 with the assistance of the Josiah Macy Jr. Foundation, was sponsored during its first five years of publication by a division of the National Research Council. Subscription price is $6.50 per year.

INFORMATION

C.M.A. Policy on Health Insurance Bills

Sam J. McClendon, M.D., *San Diego*
President, California Medical Association

Advance publicity given Governor Warren's new compulsory health insurance bills, S.B. 733 and A.B. 1500, now pending before the State Legislature, apparently was designed to create an impression in the public mind that the new program is moderate and free of many of the objectionable features which characterized the legislation defeated in 1945.

That impression is false.

NEW BILLS ENDANGER PUBLIC HEALTH

The two new bills (they are identical) are now available and have been carefully analyzed. The new bills, in many respects, are more dangerous to the public health than the bills beaten two years ago.

The 1947 program, while it differs from the 1945 plan in specific provisions, still constitutes a program of compulsion to regiment doctors and their patients, to levy new payroll taxes on workers and employers—and to foist a system of politically controlled, socialized medicine on the people of California.

A PROMISE THAT CAN'T BE KEPT

The program is economically unsound, medically dangerous—and cruelly misleading in that it holds out a promise of hospital care to the sick and injured which the State is wholly incapable of keeping in face of the present critical shortage of hospital facilities.

California has a shortage of between 15,000 and 20,000 hospital beds for present needs, according to surveys which have been recently conducted—and it will take years of new hospital construction before that acute shortage can be overcome, even if means are found to finance the tremendous building program required.

There is very serious danger to the public health if the Warren compulsory health insurance program, which would cover more than 6,000,000 people, should be enacted. For every person covered under the act would be entitled to 100 days of hospitalization for each illness. Every patient, to get a benefit from his tax, would demand that he be hospitalized, because home and office calls of the doctor under this program are excluded—but medical care in the hospital, and during post-hospital recovery, is provided.

THE CRITICALLY ILL WOULD SUFFER

The chaotic conditions which would follow are all too apparent. Hospitals would be jammed with patients with minor illnesses or injuries—and people who became critically ill, in desperate need of hospitalization, would in many instances be denied the care necessary to save their lives.

On that score alone these bills should be quickly and decisively defeated, but there are many other dangerous and unworkable provisions in the program.

The program calls for a 2 per cent payroll tax on wages up to $3,000 (1 per cent to be paid by the employee and 1 per cent by the employer) to provide the following services both for the employees and their families: (1) Hospitalization for each illness or disability up to 100 days; (2) All surgical operations by doctors; (3) All medical care by doctors from and after entry into hospital, and up to 100 days; (4) All x-ray and laboratory services in and out of the hospital; (5) Drugs, biologics, plasma, etc.; (6) Obstetrical care; (7) Dentistry in hospital, except extractions and pyorrhea.

2 PER CENT TAX IS INADEQUATE

That phase of the program must have been drafted by someone more versed in socialistic ideologies than in medicine, hospital management or insurance principles—for any attempt to render such services for a 2 per cent payroll tax would result in bankruptcy for the doctors and hospitals, or a State deficit running into many millions of dollars. It should be noted, in this regard, that there is no provision in the act for payment of deficits.

The payroll tax provided in the bills would be levied against all employees (other than Christian Scientists), regardless of salary or income, who are now under the Unemployment Compensation Act (Sections 33-35), plus all employees of the State, counties, cities, districts, etc., (Sections 25-36), even including the Governor and other elective officials. While only the employees (and their employers) would be taxed, the families of employees would be entitled to medical and hospital care—and it is conservatively estimated that the group covered would number more than 6,000,000.

LOCAL TAX INCREASES

As the State, the 58 counties, all cities and districts would be required to pay the employer's tax for public employees in their jurisdiction, the act would have the effect of increasing State and local taxes—and would result in an automatic increase of all statutory debt limits (Section 127). Every taxpayer, therefore, in his dual role as an employer of public employees, would be forced to contribute toward the employer's share of the tax for government workers—in addition to paying into the

fund as employee or employer in his normal place of business.

The intent to set up a system of politically-controlled State medicine is disclaimed in Article 1, Section 1, of the bills, with a generalized statement to the effect that "the traditional relationship between patient, doctor and hospital" will not be changed. But the content of the bills, in almost every article and section which follows, belies this reassuring preamble.

So there can be no misunderstanding of the exact provisions of the bills in this regard, the State administrative bureau, which would be known as the California Health Service Authority, would have full power:

THIS IS SOCIALIZED MEDICINE

1. To fix "standards of service" (Section 209), that is to control hospital practices and medical acts and procedures;

2. To fix rates of pay to hospitals, to physicians, to laboratories and dentists (these rates need not be uniform in all parts of the State); (Section 209);

3. To extend benefits beyond those immediately authorized in the bill (Section 55-56);

4. To hire an Executive Director at $12,000 per year, plus other employees as desired (Sections 215-216);

5. To spend one-sixth of the administrative fund for financing refresher courses for doctors (Sections 158 and 210.5);

6. To carry on a propaganda campaign to influence the people and the Legislature to extend the act to include anything now left out (Section 211), and

7. To approve or reject "voluntary plans" of health insurance that desire to provide coverage for a 2 per cent of payroll premium tax.

For all practical purposes, the State bureau would hold the power of life or death over every one of the voluntary health insurance systems operating in California.

A DEATH BLOW TO VOLUNTARY SYSTEMS

And if the advocates of this legislation should be successful, the death knell already has sounded for California Physicians' Service, the doctors' own plan of pre-paid medical and hospital care, which now covers more than 400,000 people and is recognized as one of the outstanding systems in the Nation. Under the terms of S.B. 788 and A.B. 1500, California Physicians' Service is not eligible as a voluntary system—because it is a service plan rather than an insurance indemnity plan. Blue Cross Hospital Service, with its more than 650,000 members in California—and its national reputation in the voluntary field—would also be denied the right to operate.

Yet there are provisions in these bills which make pious protestations that the State program will encourage and aid the voluntary health systems!

One of the most glaring injustices which would result from enactment of the Warren compulsory health insurance bills is that more than 1,000,000 California war veterans, who served in World Wars 1 or 2, or the Spanish-American War, and who are now entitled to free medical and hospital care from the Federal Government, would be taxed arbitrarily to support a program they neither need nor want.

The American Legion, in both its National and State conventions last year, went on record as emphatically opposed to compulsory health insurance, and many of the other veterans' groups have taken similar action. Yet the State program now proposed would not only create a compulsory system, but would force veterans to pay into the fund when the Federal Government already has provided for their medical care.

California Physicians' Service, under a contract with the Veterans' Administration, has been providing medical care for veterans by their own physicians, in their own home communities, for all war-connected disabilities which do not require hospitalization. And veterans who require hospitalization are entitled to receive it without charge, as a benefit earned by their war service, in government hospitals.

Government compulsion and regimentation are abhorrent to the American people.

The California Medical Association will oppose these bills because it believes that the people of this State never would knowingly accept a system of State medicine; that they never would tolerate the type of medicine practiced in countries which have embraced compulsory health insurance. The people of California don't want a political doctor when illness strikes; they want their own doctor, and their own hospital, free from bureaucratic restraints.

Cancer Commission Refresher Course

The Cancer Commission announces a Refresher Course on neoplastic disease for physicians primarily in Northern California, to be held in San Francisco, March 27 and 28.

Expenses incident to the course are being defrayed by the American Cancer Society, California Division. Registration is limited to 175.

Applications to attend may be mailed to Dr. David A. Wood, Secretary, Cancer Commission, 450 Sutter Street, San Francisco, California.

Program for the course follows:

THURSDAY AND FRIDAY, MARCH 27 AND 28, 1947

Morning Session—9 A.M., March 27, Lane Hall, Stanford University Medical School.

Introductory Remarks—Lyle Kinney, M.D., Chairman Cancer Commission, or J. F. Rinehart, M.D., Chairman Program Committee.

CANCER OF THE ESOPHAGUS

Chairman, Robert Newell, M.D.

Recent Advances in Surgery for Cancer of the Esophagus—Gunther Nagel, M.D.—15 min.

Clinical Symptomology and Esophagoscopy — Clayton Lyon, M.D.—10 min.

X-ray Diagnosis—A. Justin Williams, M.D.—10 min.

Review of Experience in Surgery for Cancer of the Esophagus—H. Brodie Stephens, M.D.—15 min.

X-ray and Radium Therapy of Inoperable Cancer of the Esophagus—Robert Newell, M.D.—10 min.

Questions.

RECESS

CANCER OF THE STOMACH

Chairman, Arthur Bloomfield, M.D.

A round table discussion on the diagnosis and treatment of this common malignant disease. Participants: Drs. Emile Holman, H. Glenn Bell, L. H. Garland, Alvin Cox, Maurice Dailey, and Thomas Mullen.—60 min. Questions—30 min.

Luncheon.

Afternoon Session—2 P.M., March 27, Lane Hall, Stanford University Medical School.

CANCER OF THE UTERUS

Chairman, Dr. Ludwig Emge

Early Diagnosis of Cancer of the Uterus—The Use of the Vaginal Smear—Herbert F. Traut, M.D.—30 min.

Cancer of the Uterine Body—Aspiration and Other Biopsy Methods in Diagnosis—Paul Hoffmann, M.D.—15 min.

Prognosis and Treatment in Cancer of the Uterine Body—Donald W. de Carl, M.D.—15 min.

RECESS

X-ray and Radium Treatment of Cancer of the Cervix—Ludwig Emge, M.D.—30 min.

The Role of Surgery in Cancer of the Cervix—Daniel Morton, M.D.—30 min.

Questions.

Evening Meeting—8:30 P.M., March 27, Lane Hall, Stanford University Medical School.

The Program of the Cancer Commission of the California Medical Association and the American Cancer Society—Lyle Kinney, M.D., Chairman, Cancer Commission.

Cancer of the Large Intestine—Robert Scarborough, M.D.

Morning Session—9 A.M., March 28, Toland Hall, University of California, Medical School.

CANCER OF THE SKIN

Chairman, H. Glenn Bell, M.D.

The Clinical Aspects of Skin Cancer—Frances Torrey, M.D.—20 min.

Biopsy, Excisional Biopsy and Surgical Therapy of Skin Cancer—Otto Pflueger, M.D. and J. F. Rinehart, M.D.—20 min.

Irradiation Therapy of Skin Cancer—Bertram V. Low-Beer, M.D., 20 min.

Cancer of the Ear (Pinna)—Nelson Howard, M.D.—15 min.

Questions.

RECESS

Melanotic Tumors, Benign and Malignant—H. Glenn Bell, M.D.—10 min.

CANCER OF THE LIP

Chairman, H. Glenn Bell, M.D.

A round table discussion on diagnosis and methods of treatment. Participants: Drs. Leon Goldman, Emile F. Holman, Robert Newell, Robert S. Stone, David A. Wood—40 min.

Luncheon.

Afternoon Session—2 P.M., March 28, Toland Hall, University of California, Medical School.

CARCINOMA OF THE BREAST

Chairman, E. I. Bartlett, M.D.

Clinical Diagnosis and Prognosis as Related to Site and Stages Relation to Mastitis—E. I. Bartlett, M.D.—20 min.

The Gross and Microscopic Aspects of Breast Cancer—The Frozen Section—Stuart Lindsay, M.D.—15 min.

The Radical Operation for Breast Cancer and Indications for Operation—20 min.

RECESS

The Use of X-ray in Postoperative Treatment—Evelyn Siris, M.D.—15 min.

Palliative Irradiation of Advanced and Disseminated Breast Cancer—Robert Newell, M.D.—20 min.

Recent Experimental Studies on Hormonal Treatment of Inoperable Cancer of the Breast—Howard Steinbach, M.D.—15 min.

Hormonal Therapy in the Gynecologic and Mammary Sphere—C. Frederic Fluhman, M.D.—20 min.

Questions.

Letters to the Editor . . .

SOVIET "ACS" THERAPY

In 1900, Metchnikoff[3], applying the pharmacological principle that small doses of toxic drugs may stimulate rather than damage, expressed the idea that stimulation of tissues could be accomplished by the employment of small doses of antiserum specific for these tissues. Twenty-four years later, one of his students, Bogomolets[1], and his colleagues of the Ukraine, began a study of the possibility of stimulating the physiological activity of connective tissues by the injection of small doses of species-specific antireticular cytotoxic serum ("ACS").

Since then, numerous experimental and clinical successes have been reported by Soviet investigators. Among these, Varchamov[6] reported stimulation of the production of antisheep hemolysins and B. Typhosus agglutinins in rabbits. Neuman[4] reported the saving of 75 per cent of mice infected with recurrent typhus, whereas 100 per cent of the controls died. Others[1] reported increased rate of healing of experimentally produced fractures in rabbits, decreased number of takes and reduced number of metastases in transplanted cancer in mice. Clinically there was found to be an accelerated healing of severe frostbites, gangrene and war wounds, together with favorable effects in early stages of hypertension, "acute rheumatism," polyarthritis, pulmonary abscess, and tuberculosis.

In view of the numerous and remarkable claims thus made, a feeling of skepticism is natural. Because of its potential importance, however, the claims of therapeutic effects of "ACS" are worthy of attempted confirmation. This has been undertaken by Straus[5] and his associates of the Cedars of Lebanon Hospital, Los Angeles, California.

In their initial study, anti-human "ACS" was prepared by a slight modification of the Soviet technic.[2] Emulsified spleen and bone marrow from fresh human cadavers were extracted for 30 minutes at room temperature in five volumes of saline solution. After centrifugation the supernatant fluid was injected intravenously at three-day intervals in progressively increasing doses into young rabbits. Five to seven days after the sixth injection the animals were bled by cardiac puncture. The resulting antiserums were titrated by the complement-fixation reaction. At this time the titers usually varied from 2,500 to 10,000 arbitrary units.

Anti-rabbit "ACS" was prepared by the same technique, by injecting rabbit spleen and bone marrow extracts into young goats. Both the anti-human and anti-rabbit ACS were species-specific, giving negligible cross-reactions. In the undiluted state both serums may be kept at 4°C or at room temperature for a year or more with but slight deterioration. After dilution with saline solution both serums deteriorate rapidly.

The Soviet investigators claim that intravenous injection of large doses of homologous "ACS" inhibits or prevents normal healing of bone fractures; but that small doses of the same antireticular serum have the opposite effect, causing accelerated or more perfect healing. To test this claim, experimental fractures were made, under nembutal anesthesia, of the right radius and ulna of 256 healthy female rabbits, each weighing 2.25-2.50 kg. The fractures were made by means of a special osteoclast that would secure as much uniformity as possible in the location, orientation, cleanness and completeness of the fractures. Reduction of the fractures was accomplished immediately without the aid of a fluoroscope. The limbs were then encased in a light cast.

On the third day after the fracture the animals were separated at random into five groups. Each of the animals of group A was injected intravenously with 0.00125 cc. of anti-rabbit "ACS", the recommended "stimulating dose" of the Soviet investigators. Animals of group B were given 0.1 cc. anti-rabbit "ACS", the recommended "depressing" dose. Control groups C and D were given similar injections with normal goat serum. Control group E received no serum.

Roentgenograms were made of the fractured extremities at periodic intervals. On the 14th day the animals were sacrificed and the fractured forelegs stripped of soft tissues. The extent of the healing was estimated by comparing the size and character of the callus and the mobility and strength of the fracture site. The average roentgenogramic score, recorded in degrees groups (B), rising to 3.06 for the stimulated group (A). The average strength of the healed fractures was 3.41 kg. for the three control groups (C. D. E.), falling to 0.79 kg. for the "depressed" group (B), and increasing to 6.83 kg. for the "stimulated" group (A). Stimulating doses of "ACS" thus doubled the rate of normal healing of experimental fractures. Toxic doses of the same serum decreased the rate of healing to about one-fourth normal. Histological studies confirmed these differences.

The California investigators have thus confirmed the Soviet claims that small doses of homologous "ACS" accelerate connective tissue proliferation. This confirmation may go far to decrease the current skepticism of the Soviet clinical claims. The alleged acceleration of antibody production by ACS stimulation of the reticulo-endothelial system is of particular theoretical and clinical interest. This claim is now under investigation.

W. H. Manwaring, Stanford University.

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BOOK REVIEWS

THE PERSONALITY OF THE PRESCHOOL CHILD. By Werner Wolff, Ph.D., Professor of Psychology, Bard College. Grune & Stratton, New York. 1946. Price $5.00.

"The Personality of the Preschool Child" by Werner Wolff, Ph.D., is a timely book. It is an odd fact that all adults have lived through the childhood period and yet so very few understand child psychology or the child's personality. This book is an attempt to study the ways and means of understanding a child's point of view. The book compares, first, the mind of the child and adult, secondly the emotions of the child and adult, and then goes on to discuss the child's concept of reality and his growth in developing an as individual. Various methods of interpreting the child by his play, his growing and other methods of expressing himself are discussed. The book is not written for parents; it is a book that should be read by professional people interested in the child, such as child psychologists, psychiatrists, pediatricians and educators. Even among these it is necessary that the individual be somewhat familiar with methods used in studying children in order to get the most out of the book. Unfortunately, relatively few pediatricians have much of this backgronnd.

For those who are not interested in or familiar with some of the newer methods of studying child psychology it might be well to read the last half of the book first, starting with Chapter 10 which deals with the educational bridge between two worlds, referring to the child world and the adult world. Certainly every pediatrician should be aware of the number of problems in his practice which are related to emotional disturbances rather than physical defects. Many of these problems arise merely from the child being fenced in by adults, so completely surrounded by them and his life ordered by them that the child has no opportunity to develop his own personality and against which encirclement he may defend himself either by behaving as a little caged animal or by retreating into a corner and sucking his thumb.

CLINICAL HEMATOLOGY. By Maxwell M. Wintrobe, M. D., Ph.D., Professor of Medicine, University of Utah, School of Medicine, Salt Lake City, Utah; Formerly Associate in Medicine, Johns Hopkins University, Associate Physician, Johns Hopkins Hospital, and Physician-in-Charge, Clinic for Nutritional, Gastro-Intestinal and Homopoietic Disorders, Baltimore, Maryland. Second Edition, enlarged and thoroughly revised, published October, 1946. Octavo, 862 pages, illustrated with 197 engravings and 14 plates, 10 in color. Cloth, $11.00.

It is a pleasure to review this excellent book on Clinical Hematology written by Professor Maxwell M. Wintrobe. The author's contributions to hematology from the viewpoint of both normal and abnormal physiology give him a background that enables him to bring together the tremendous amount of data found between the covers of this book.

The author, in this second edition, has increased the size of the book by seventy pages. There have been added more engravings and colored plates. These are essential to a good text on hematology, but their cost of reproduction is so prohibitive that an author must restrain himself in the number of his selections.

There has been an expansion of a fascinating chapter on the metabolism of hemoglobin which encompasses the manufacture and destruction of the red blood cell.

The section on the Rh factor, and its various sub-groups, and the role it plays in the destruction of the red blood cell following transfusion reactions and hemolytic diseases of the newborn, has been considerably extended. There is an entirely new section on folic acid and the role it plays in the maturation of the red blood cell.

There is some discussion on the use of nitrogen mustards in the treatment of Hodgkins Disease and Leukemia.

A great deal has been added in the way of clinical description of diseases and their variations that make the book of practical value to the general practitioner. The Lymphomas, Monocytic Leukemias and Infectious Mononucleosos are but a few of the conditions that may be mentioned in this category.

The text contains usable laboratory procedures and methods of treatment that enhance its value. This book should be designated as the standard text for the hematologist, the practitioner and the medical student.

THE COMPLEAT PEDIATRICIAN, Fifth Edition, Practical Diagnostic, Therapeutic and Preventive Pediatrics. By W. C. Davison, Professor of Pediatrics, Duke University School of Medicine, Formerly Acting Pediatrician in Charge, The Johns Hopkins Hospital. Duke University Press, Durham, N. C. Price $3.75.

Like earlier editions, this fifth edition of "The Compleat Pediatrician" is a valuable handbook, not only for a pediatrician, but for the general practitioner. It is first of all a "differential diagnosis" based on symptoms and signs. The probabilities, and possibilities, both near and remote, which certain symptoms invoke are listed. The list is in order of frequency of occurrence based on voluminous hospital and dispensary records. Secondly, the book serves as a clinical laboratory manual. Thirdly, it is a handbook of pediatric therapy. Here perhaps the author is a little generous in including therapy of questionable value as well as drugs and biologics of proven value. Finally there are included some very valuable tables on normal growth and development, on food composition and diets, on drug dosages, and on clinical chemical norms.

The best description of this book is that of the author himself who writes in the preface, "Indeed it might be called a pediatric almanac." Dr. Davison goes on to express the hope "that this book may serve as a 'ready reminder' to be carried in a physician's pocket or bag to jog his memory on possibilities, but it cannot do his thinking for him." The reviewer has used earlier editions of this book in this way and has found them to be excellent "ready reminders." He will use the fifth edition similarly.

HENRY SEWALL, Physiologist and Physician. By Gerald R. Webb and Desmond Powell. The Johns Hopkins Press, Baltimore 18, Maryland. 1946. Price $2.75.

Dr. Webb and Mr. Powell have presented a biography in a delightful literary style of a great physiologist, physician and teacher. The little book of two hundred pages portrays with engaging interest the romantic career of a descendant of a distinguished family who was annoyed at the "exalted exercise of the vain impulse which leads to search for noble tributaries of the ancestral stream"—who spoke of himself as a Virginian by mistake, his parents being temporarily away from their Baltimore home.

From his youth he was possessed of what Huxley called the "devine dipsomania of original research"—also possessed of a fiery, picturesque and murderous temper refined withal by early ardent religious training. His sarcasm was scorching and his advice was incisive. In dismissing a young man who later became a well known scientist he thunderously gave expression to the wish that God would

send him another assistant. "Any fool would be an improvement," he roared.

In engaging another he gave the following advice, "Claude Bernard was the greatest physiologist that ever lived. He knew what it takes to make a good research man and summed it up in two words, curiosity and ignorance. One of these qualities you have in superlative degree. Prove the other and we will get along famously."

The romance of his life of research and teaching involves the close friendship of his mentors, Dr. H. Newell Martin, Sir Michael Foster and Carl Ludwig, of his confreres on the faculty of Johns Hopkins and at Ann Arbor and his devotion to a devoted wife. It involves his seeking for health at Saranac with Trudeau and in the climate of the mountains while practicing medicine and teaching in Colorado. It involves his fiery personality and genius as a physiologist and as a driving and inspiring teacher.

His experiments with snake venom in 1887 marked the advance from the purely bacteriological concept of immunology, the use of attenuated bacilli, to the new field of biochemical research and antitoxins. He was followed by Calmette, and by von Behring and Roux, Kolle and Wassermann.

For those who enjoy the contemplation of the life of a sturdy character moving among men making medical history at a time when modern medical science was rapidly coming into full bloom—a story well told—this book may well be recommended.

SEGMENTAL NEURALGIA IN PAINFUL SYNDROMES. By Bernard Judovich, B.S., M.D., and William Bates, B.S., M.D. Foreword by Joseph C. Yaskin, M.D. Second Edition. 178 Illustrations. 320 Pages. F. A. Davis Company, Philadelphia, Publishers. 1946. Price $5.00.

The second edition of this book on the segmental neuralgias confirms the good results obtained by nerve blocks with the ammonium salts as well as with the 2 per cent procaine or with the two anesthetics in one solution.

The pitcher plant distillate is replaced by its active principle, ammonium chloride or sulfate, which acts on the sensory nerves relieving neuralgic pain without change in skin sensation and having no effect upon motor nerves. It has no effect on pain which originates from muscles, ligaments, tendons, blood vessels and sympathetic ganglia and fibers.

This book covers in particular the intercostal neuralgias and abdominal wall neuralgias which have at times simulated the pain of visceral disease. Unless one determines the type of pain and tenderness in the patient, needless and useless operations may be performed for a segmental neuralgia which might be due to toxic absorption, poor posture, trauma, arthritis of the spine or malignant metastases, and which may be relieved by physical therapy, postural corrective exercises and nerve blocks.

In attempting to cover the field of pain relieved by nerve blocks, trigeminal neuralgia is included. Chapter 13 on herpes zoster reports good results in the acute phase by paravertebral nerve block, but no real relief of pain in the chronic cases. Although the authors suggest that changes take place in the sympathetic ganglia in the chronic cases, they have not attempted to give relief, as others have, by sympathetic blockage.

The technique for infiltration of the anterior scalene muscle is an improvement and fairly safe.

The illustrations are helpful and make this book of value to everyone troubled with the not too infrequent problem of determining the origin of pain and its proper treatment.

WHAT IS HEART DISEASE. By W. H. Gordon, M.D., F.A.C.P., Diplomate of the American Board of Internal Medicine, Head of Medical Section, Lubbock Memorial Hospital and Clinic, Lubbock, Texas. Grune & Stratton, New York. 1946. Price $2.50.

The anthor has a sound, optimistic approach to the problem of presenting heart disease to the patient. The generally reassuring tone is constructive because patients who take the time to read popular medical books are usually the most anxious ones. The book consists of nine chapters containing brief discussions of various cardiac problems, and encyclopedia-like definitions of some terms used in cardiology.

The author is to be complimented for his clear-cut, understandable and well-illustrated presentations of the function of the normal and abnormal heart. The last chapter: "Symptoms erroneously thought to indicate heart disease" is excellent. One may question, however, the need for including in the presentation some rare forms of heart disease, or such subjects as history taking, physical examination, or description of cardiac sounds and murmurs. One regrets also that so little space is devoted to various aspects of management of a patient with heart disease, the understanding of which makes the task of the physician, and the patient's life, easier.

On the whole, the book will be found interesting by a patient who merely wants to know more what his doctor is talking about. It will be somewhat of a disappointment to the thonghtful patient who wants guidance in how to cooperate with his physician.

MONGOLISM AND CRETINISM. By Clemens E. Benda, M.D., Director, Wallace Research Laboratory for the Study of Mental Deficiency, Wrentham, Mass., Instructor in Neuropathology, Harvard Medical School, Assistant in Psychiatry, Massachusetts General Hospital, Lecturer, Postgraduate Seminar, Massachusetts Department of Mental Health. Copyright 1946. Grune & Stratton, New York. Price $6.50.

Benda describes mongolism as "pitnitary cretinism" due to congenital hypopituitarism and calls the condition acromicria. The opposite of mongolism is acromegaly. His thesis is based upon the pathology of the pituitary gland suggesting its deficiency and he states that all endocrine glands show the effect of this. Twelve per cent of mongols have a cretinoid condition of the thyroid gland and in the other 88 per cent the thyroid stagnates although it seems fit for some normal function. Mongolism is an experiment by nature to produce humans without adequate endocrine function. The mongol brain with its mental deficiency is the result of chronic anoxemia or hypoglycemia. Benda recommends therapy with thyrotropic and thyroid hormones among the other usual procedures. There is a chapter on the relation of mongolism to the mother's pre-natal condition and some theoretical remarks on prevention.

Benda constantly contrasts and compares mongolism with cretinism. He states that the latter is not due primarily to thyroid deficiency and that the thyroid disease only occurs in the course of a general degeneration. He feels that the brain pathology of cretinism is a metabolic defect produced by anoxia.

There are good clinical and pathological descriptions of mongolism. These should be checked by other pathologists, as the findings are somewhat different from previously reported autopsies.

This book is recommended for those dealing with mongolism, particularly pediatric neuropsychiatrists, pathologists and institntional workers.

MEDICAL JURISPRUDENCE

MALPRACTICE—SUFFICIENCY OF EVIDENCE FROM WHICH A JURY MAY DRAW CONCLUSIONS

PEART, BARATY & HASSARD, *San Francisco*

A very recent case, (Dec. 24, 1946) 77 A.C.A. 432, decided by the District Court of Appeal of the State of California discussed the medical procedures and degree of skill which a physician should exercise in treating an injury. The facts giving rise to the case were as follows:

Mr. X while working for a shipbuilding corporation suffered a bruise and laceration between the distal and medial phlanges of his middle left finger about the size of a dime, when a steel beam fell upon it. He reported at once to the first aid hospital where under the direction of Doctor W., an employee of the defendant doctor, he extended the injured member for ten minutes into the radiation of the x-rays applied in conjunction with a fluoroscope while the physician examined the injury. The injury was then soaked in a solution of epsom salts after which it was dressed with ointment and bandaged. Mr. X returned at intervals of two or three days for three weeks for the treatments while he continued at his work. Although he favored the finger it did not cause him any distress. After the sixth treatment the injury healed. About four days later it broke open, making a wound about half an inch in length. Thereafter it habitually healed in approximately a week and broke open again in four days. This continued for almost seven months, during which time Mr. X did not report this capricious behavior to anyone in the hospital. He returned to the hospital on July 3, 1942, when a callus had formed over the wound, and an x-ray was made of the injured area. He then obtained from the hospital a piece of adhesive tape and wrapped it around the sore spot. It remained for four or five days during which he felt a burning, irritating pain which had first occurred about a month prior to the formation of the callus. On removing the tape the callus came off. He then returned to the hospital where he was referred to the defendant doctor. Mr. X discontinued work July 15. After an examination by an associate of the defendant doctor at the latter's office respondent was examined next on August 14, 1942, by a Dr. F, a specialist in dermatology. At that time the doctor found on the anterior surface of the finger an arthrempysis about a half inch in diameter with a small ulcer in the center. The posterior surface was smooth and red. Basing his opinion upon such examination and upon the history given by the patient, Dr. F testified that his diagnosis was "x-ray ulcer with dermatitis."

On August 31, 1942, Mr. X was examined by a Dr. M who diagnosed the wound as a trophic ulcer, consistent with roentgen dermatitis. Thereafter Dr. M saw Mr. X twice in September and twice in October and administered medicaments: pantocain and sulpha drugs to the wound, leaves of cactus plant, radon ointment, lanolin and vaseline. Dr. M then recommended excision of the ulcer, which was performed by others at the hospital. This operation did not clear up the infection although the excision was down to the tendon. Mr. X suffered thereafter from a red rash with water blisters as a result of his allergic reaction to the sulpha drugs which had been administered and he continued to have pain which could be relieved only by codein. Dr. M then recommended amputation of the entire finger to which the defendant doctor acquiesced and the operation was performed December 1, 1942. Thereafter swelling progressed up Mr. X's arm and the increased temperature and redness of the skin necessitated the opening of the wound on December 17. The wound healed slowly. Mr. X was discharged from the hospital February 10, 1943.

At the trial Mr. X produced four expert witnesses who testified that Mr. X had a trophic ulceration with dermatitis consistent with x-ray burn. Other expert testimony was given to the effect that the record of Mr. X, afer the injury, revealed that the injury was due to prolonged x-ray radiation. The jury held for Mr. X and awarded him damages against the defendant physician. In its opinion the District Court of Appeal held that the jury had ample competent proof that the injuries suffered by Mr. X were the result of a radiation burn. Discrepancies in the testimony, contradictory statements by Mr. X and possibilities that the ulcer might have been caused by trauma or other influences were resolved, the court stated, by the jury in holding for Mr. X. The court then enunciated the rule that in such cases it is not necessary to demonstrate conclusively the negligence of the physician, holding that a preponderance of the evidence only is required, and the fact finders may within reasonable limitations draw their own inferences from proven facts; also, they may reject alternative opinions while accepting the primary opinions of experts. The court then stated that: "Mr. X's testimony that his finger was held under the influence of x-rays while being examined through a fluoroscope; his immediate suffering with intense pain; the excision of the ulcer; the amputation of the finger; the pus-draining operation; the pain in his arm; confinement to the hospital; loss of power in his hand; all warrant the finding that the sole and efficient cause of Mr. X's injuries was the negligence of the physician who exposed his hand to the radiation."

It was contended by the defendant doctor that Mr. X was guilty of contributory negligence and did not exercise reasonable diligence in caring for his injury and did not use reasonable means to prevent its aggravation. However, the jury disregarded this argument and held for Mr. X.

PROGRAM AND PRE-CONVENTION REPORTS

for the

CALIFORNIA MEDICAL ASSOCIATION

Seventy-sixth Annual Session

Los Angeles—April 30-May 3, 1947

Biltmore Hotel

PROGRAM

	Page
Photographs of Officers	156
Photographs of Guest Speakers	157
Officers and Delegates	158
House of Delegates Agenda	160
Proposed Constitutional Amendments	161
Scientific Assemblies	
General Meetings	162
Section on General Medicine	163
Section on General Surgery	165
Section on General Practice	167
Section on Anesthesiology	169
Section on Dermatology and Syphilology	170
Section on Eye, Ear, Nose and Throat	172
Section on Industrial Medicine and Surgery	173
Section on Neuropsychiatry	175
Section on Obstetrics and Gynecology	177
Section on Pathology and Bacteriology	178
Section on Pediatrics	179
Section on Public Health	180
Section on Radiology	181
Section on Urology	182
Index to Speakers	185
Women's Auxiliary to C.M.A.	187
Chart of Meeting Times and Places	188

PRE-CONVENTION REPORTS

	Page
Reports of General Officers	189
Reports of District Councilors	196
Reports of Councilors-at-Large	198
Reports of Committees	199
Reports of County Medical Societies	205

CANCER COMMISSION

Pre-Convention Conferences, Page 184



SAM J. McCLENDON
President of C.M.A.

JOHN W. CLINE
President-Elect





E. VINCENT ASKEY
Speaker of the House of Delegates

Guest Speakers



JAMES T. PRIESTLEY, Guest Speaker
Mayo Clinic, Rochester, Minnesota



A. W. OUGHTERSON, Guest Speaker
Medical Director of the American Cancer Society
New York City



HOBART A. REIMANN, Guest Speaker
Professor of Medicine, Jefferson Medical College
Philadelphia

OFFICERS AND DELEGATES

General Officers

SAM J. McCLENDON, San Diego, President

JOHN W. CLINE, San Francisco, President-Elect

E. VINCENT ASKEY, Los Angeles, Speaker of House of Delegates

L. A. ALESEN, Los Angeles, Vice-Speaker of House of Delegates

EDWIN L. BRUCK, San Francisco, Chairman of Council

L. HENRY GARLAND, San Francisco, Secretary

DWIGHT L. WILBUR, San Francisco, Editor

JOHN HUNTON, San Francisco, Executive Secretary

PEART, BARATY & HASSARD, Legal Counsel

Members of House of Delegates—44th Annual Session

TOTAL DELEGATES (204)
DELEGATES EX OFFICIO (21)

Sam J. McClendon, San Diego.....President
John W. Cline, San Francisco.....President-Elect
E. Vincent Askey, Los Angeles.....
.....Speaker of House of Delegates
L. A. Alesen, Los Angeles.....
.....Vice-Speaker of House of Delegates
L. Henry Garland, San Francisco...Secretary-Treasurer
Dwight L. Wilbur, San Francisco.....Editor
Herbert A. Johnston (1947).....Councilor 1st District
Jay J. Crane (1948).....Councilor 2nd District
Harry E. Henderson (1949).....Councilor 3rd District
Axcel E. Anderson (1947).....Councilor 4th District
R. Stanley Kneeshaw (1948).....Councilor 5th District
Edwin L. Bruck (1949).....Councilor 6th District
Lloyd E. Kindall (1947).....Councilor 7th District
Frank A. MacDonald (1948).....Councilor 8th District
John W. Green (1949).....Councilor 9th District
Walter S. Cherry (1948).....Councilor-at-Large
H. Gordon MacLean (1948).....Councilor-at-Large
Sidney J. Shipman (1947).....Councilor-at-Large
E. Earl Moody (1947).....Councilor-at-Large
C. V. Thompson (1949).....Councilor-at-Large
Louis J. Regan (1949).....Councilor-at-Large

ELECTED DELEGATES (183)

Delegates	*Alternates*
Alameda County (14)	
Warren B. Allen	John Azevedo
Cyril J. Attwood	Grant Ellis
H. Chesley Bush	Samuel P. Hall
Philip J. Dick	James T. Harkness
William G. Donald	W. F. Holcomb
Edward N. Ewer	George S. Holeman
T. C. Lawson	E. D. Ivey
Lester B. Lawrence	K. B. Jenkins
Donald D. Lum	Emil B. Leland
Ergo A. Majors	James M. Neil
Albert M. Meads	James Raphael
William W. Reich	Hobart Rogers
T. E. Reynolds	D. D. Stafford
Stanley R. Truman	
Butte-Glenn County (1)	
Hollis L. Carey	J. G. Hepplewhite
Contra Costa County (2)	
Kaho Daily	M. C. Bolender
J. M. McCullough	J. M. Boomer
Fresno County (4)	
C. H. Covington	Hugh Awtrey
Neil J. Dau	Edward C. Halley
V. G. Ghormley	C. S. Mitchell
J. E. Young	Edwin R. Scarboro
Humboldt County (1)	
O. R. Myers	Charles Falk, Jr.
Imperial County (1)	
Charles M. Cutshaw	George M. Cole
Inyo-Mono County (1)	
George D. Shultz	Walter Wilson
Kern County (2)	
Chester I. Mead	Eric F. Colby
Roderick A. Ogden	J. E. Vaughan
Kings County (1)	
Allen E. Stamler	Floyd E. Lees
Lassen-Plumas-Modoc County (1)	
Wilbur C. Batson	Fred J. Davis, Sr.
Los Angeles County (70)	
Clarence H. Albaugh	Marden A. Alsberge
C. Max Anderson	A. J. Annis
Donald T. Babcock	Francis L. Anton
Wilbur Bailey	Samuel K. Bacon
Elmer J. Ball	Glen L. Barnum
Herbert C. Behrens	C. J. Baumgartner
Elmer Belt	John W. Beeman
John E. Bergmann	Frederick A. Bennetts
Clarence J. Berne	Lewis P. Bolander
P. C. Blaisdell	H. B. Breitman
Peter Blong	Hans V. Briesen
John A. Bullis	William C. Bruff
Richard O. Bullis	Ben L. Bryant
George W. Caldwell	Tenero D. Caruso
John A. Chapman	Rafe C. Chaffin
Donald A. Charnock	Finis G. Cooper

Los Angeles County (Continued)

Delegates	*Alternates*
Burt T. Church	William E. Costolow
Wells C. Cook	John W. Crossan
John C. Cottrell	William H. Daniel
Lawrence L. Craven	Kenneth S. Davis
Leonard E. Croft	Karl L. Dieterle
Harold E. Crowe	George R. Dunlevy
Philip J. Cunnane	Raoul Esnard
Harri L. Davies	Frederic Ewens
J. M. de los Reyes	Ward L. Fisher
Ralph B. Eusden	Alvin G. Foord
Franklin Farman	Garland F. Garrett
Paul D. Foster	Vernon F. Hauser
Dorothy M. Franklin	Donald Q. Heckel
Ben Frees	Wybren Hiemstra
F. J. Gaspard	Malcolm R. Hill
Frederick G. Gruber	Elizabeth Mason Hohl
Channing W. Hale	Howard P. House
H. S. Hendrickson	Etta C. Jeancon
J. Severy Hibben	W. S. Kiskadden
Lawrence M. Hill	George H. Kress
Eugene F. Hoffman	E. R. Lambertson
Morrill L. Ilsley	Anton Laubersheimer
Julius Kahn	C. Harry Linsley
Frederick Kellogg	Joseph Marco
Joel S. Kelsey, Jr.	Charles F. McCuskey
John A. Keys	Robert J. Moes
S. G. Kreinman	Herbert S. Mooney
T. J. Laughlin	James C. Negley
William H. Leake	Charles F. Nelson
O. Dale Lloyd	R. C. Nelson
Harold K. Marshall	Thomas E. Noble
Thomas R. Martin	Frank W. Otto
Ben D. Massey	John R. Palazzo
Paul E. McMaster	Joseph A. Parker
Robert W. Meals	Tracy O. Powell
William R. Molony, Jr.	Marcus H. Rabwin
Clarence M. Movius	B. O. Raulston
Carl L. Mulfinger	Paul A. Reichle
M. L. Newkirk	Oscar Reiss
George F. Paap	J. C. Risser
Edward C. Pallette	Clinton A. Roath
John R. Paxton	Carl F. Rusche
F. M. Pottenger, Jr.	John P. Sampson
William F. Quinn	LeRoy B. Sherry
E. T. Remmen	John E. Short
Eric A. Royston	Harvey E. Starr
Roy E. Shipley	Vernon P. Thompson
Ralph T. Smith	Ewing L. Turner
Philip Stephens	Marie A. Vachout
J. N. Van Meter	Pierre Viole
Vernon Van Zandt	Carrol L. Weeks
Robert A. Walker	Warren A. Wilson
John F. Whalen	Angus Wright
John M. Wright	Frederick B. Zombro

Marin County (2)

Ernest W. Denicke	Carl W. Clark
Lloyd G. Tyler	Rafael G. Dufficy, Jr.

Mendocino-Lake County (1)

L. K. Van Allen	Walter Rapaport

Merced County (1)

R. T. Peck	L. J. Lymp

Monterey County (2)

E. Wiley Reeves	J. H. McPharlin
Margaret Swigart	A. L. Wessels

Napa County (1)

Dwight H. Murray	George I. Dawson

Orange County (3)

John D. Ball	Ralph E. Hawes
C. Glenn Curtis	M. W. Hollingsworth
Thomas Rhone	Charles Irvin

Placer-Nevada-Sierra County (1)

William Miller	C. E. Lewis

Riverside County (2)

Newman K. Bear	Fred Clark
D. D. Roos	Walter Wood

Sacramento County (4)

Orrin Cook	E. R. Cole
Dave F. Dozier	A. M. Henderson, Jr.
Frank Reardan	A. T. Ogaard
Dudley Saeltzer	Wayne Pollock

San Benito County (1)

Ernest Nelson Moore	Eberle C. Sheldon

San Bernardino County (4)

C. N. Abbott	Willard C. Fisher
C. M. Hadley	Carroll A. Herrmann
Joseph Hayhurst	Cecil Wayne Hoff
J. Needham Martin	Leonard Taylor

Delegates	*Alternates*

San Diego County (8)

E. A. Blondin	E. G. Crabtree
Morton N. Carlile	J. C. Holman
George D. Huff	John S. Martin
Francis E. Jacobs	W. L. Martin
Fraser L. Macpherson	Alois E. Moore
Bryant R. Simpson	Thomas F. O'Connell, Jr.
Wesley S. Smith	W. Don Rolph
John Thorpe Wells	F. M. Smith

San Francisco County (26)

William L. Bender	Charles E. H. Bates
Walter D. Birnbaum	Walter Beckh
Howard A. Brown	Donald A. Carson
William G. Burkhard	Lawrence R. Custer
Edmund Butler	Leonard G. Dobson
Jesse L. Carr	Alexander F. Fraser
L. R. Chandler	Frank L. A. Gerbode
Chester L. Cooley	W. Wallace Greene
Martin W. Debenham	Kenne O. Haldeman
G. Dan Delprat	Berthel H. Henning
A. B. Diepenbrock	Ivan C. Heron
Roberto F. Escamilla	Clyde D. Horner
Frederick S. Foote	Frederick W. Kroll
Henry Gibbons, III	Charles W. Leach
Alson R. Kilgore	James Clifford Long
John J. Loutzenheiser	Clayton D. Mote
Mary E. Mathes	George B. Robson
Carleton Mathewson, Jr.	Francis Rochex
Charles A. Noble, Jr.	William L. Rogers
J. Marion Read	Thomas L. Schulte
Robert A. Scarborough	Wesley E. Scott
Ralph E. Scovel	John F. Skelly
Daniel W. Sooy	Donald R. Smith
H. Brodie Stephens	Andrew B. Stockton
Robertson Ward	William A. Sumner
William W. Washburn	Helen B. Weyrauch

San Joaquin County (3)

J. Frank Doughty	C. A. Broaddus
Neill Johnson	John O. Eccleston
Raymond L. Owens	George H. Sanderson

San Luis Obispo County (1)

Edward Blair	H. N. Cookson

San Mateo County (3)

Carl Benninghoven	Thomas Farthing
Logan Gray	Stuart Lindsay
Albert G. Miller	Hartzell Ray

Santa Barbara County (3)

Harry C. De Vighne	J. Gary Campbell
Douglas McDowell	H. V. Findlay
Alfred B. Wilcox	C. W. Henderson

Santa Clara County (5)

Dell T. Lundquist	Frederic W. Borden
Leslie B. Magoon	J. A. Cary
John Hunt Shephard	Burt Davis
Cletus Sullivan	Dudley Fagerstrom
Don Threlfall	Charles A. Fernish

Santa Cruz County (1)

Ruth A. Frary	Luther Newhall

Shasta County (1)

Julius M. Kehoe	H. T. Hinman

Siskiyou County (1)

James B. McGuire	C. C. Dickinson

Solano County (1)

Felix R. Rossi, Jr.	Carlton C. Purviance

Sonoma County (2)

Cuthbert M. Fleissner	William N. Makaroff
Ernest Vieira	R. L. Zieber

Stanislaus County (2)

John Czatt	Paul Davis
F. R. DeLappe	R. R. Treadwell

Tehama County (1)

O. T. Wood	J. L. Faulkner

Tulare County (1)

F. R. Guido	George F. Keiper

Ventura County (2)

R. K. Harker	G. H. Arnold
A. A. Morrison	C. G. Drace

Yolo County (1)

Earl H. Gray	Ray Nichols

Yuba-Sutter-Colusa County (1)

Stanley R. Parkinson	Neal M. Loomis

House of Delegates Meetings

44th ANNUAL SESSION

Special Notice.—The House of Delegates will convene for organization and other business in the Music Room of the Hotel Biltmore, on Wednesday afternoon, at 4:30 p.m., May 1, 1947.

Speaker, E. VINCENT ASKEY, *Los Angeles*
Vice-Speaker, L. A. ALESEN, *Los Angeles*
Secretary, L. HENRY GARLAND, *San Francisco*

AGENDA

FIRST MEETING

Wednesday Afternoon, May 1, 1947, at 4:30 p.m.

Order of Business

1. Call to order.
2. Report of Committee on Credentials, and Organization of the House of Delegates.
3. Roll call.
4. Announcement and approval of Reference Committees.
 (*a*) Committee on Credentials. (Delegates must register with the Committee.)
 (*b*) Reference Committee on the Reports of Officers and Standing Committees (Reference Committee No. 1). Note: Will consider also: Reports of County Society Secretaries.
 (*c*) Reference Committee on the Report of the Council and the Reports of the Secretary-Treasurer and Executive Secretary. (Reference Committee No. 2).
 (*d*) Reference Committee on Resolutions, Amendments to the Constitution and By-laws, and New and Miscellaneous Business. (Reference Committee No. 3.)
5. Address by President—Sam J. McClendon.
6. Miscellaneous announcements by the speaker. (Stenographic service, to secure triplicate copies of resolutions, etc.)
7. Report of the Council—Edwin L. Bruck, Chairman.
8. Report of the Trustees of the California Medical Association—Sam J. McClendon, President.
9. Report of the Auditing Committee—Sidney J. Shipman, Chairman.
10. Report of the Secretary—L. Henry Garland.
11. Report of the Executive Secretary—John Hunton.
12. Recess.—(Note: At the time (8:30 p.m. on Wednesday) the House of Delegates will recess. Elected and ex-officio members of the House will then convene under the chairmanship of the President of the Board of Trustees of California Physicians' Service, to function with Board of Administrative Members of California Physicians' Service. With the adjournment of the meeting of C.P.S. Administrative members, the C.M.A. House of Delegates will convene, to act again as the House of Delegates of the California Medical Association.)

Meeting of Administrative Members of California Physicians' Service

1. Roll call (8:30 p.m. on Wednesday).
2. Report of the President—Dr. Lowell S. Goin.
3. Report of the Secretary—Dr. Chester L. Cooley.
4. C.P.S. Administration Business Report, by the Executive Director—Mr. W. W. Bowman.
5. Appointment of Nominating Committee for Trustees and Administrative Members at Large.
6. Introduction of Resolutions.
7. Recess—for 24 hours. (Time of reconvening will be stated.)
8. Consideration of the Report of the Nominating Committee.
9. Consideration of resolutions.
10. New business.

13. Report of the Editor—Dwight L. Wilbur.
14. Reports of District Councilors.
15. Reports of Councilors-at-large.
16. Report of General Counsel—Hartley F. Peart.
17. Reports of Standing and Special Committees:
 A. Standing Committees:
 (*a*) Executive Committee—Sidney J. Shipman.
 (*b*) Committee on Associated Societies and Technical Groups—Anthony B. Diepenbrock.
 (*c*) Committee on Audits—Sidney J. Shipman.
 (*d*) Committee on Health and Public Instruction—George M. Uhl.
 (*e*) Committee on History and Obituaries—Morton R. Gibbons, Sr.
 (*f*) Committee on Hospitals, Dispensaries, and Clinics—Clarence E. Rees.
 (*g*) Committee on Industrial Practice—Donald Cass.
 (*h*) Committee on Medical Defense—William A. Key.
 (*i*) Committee on Medical Economics—H. Gordon MacLean.
 (*j*) Committee on Medical Education and Medical Institutions—B. O. Raulston.
 (*k*) Committee on Organization and Membership—Carl L. Mulfinger.
 (*l*) Committee on Postgraduate Activities—John C. Ruddock.
 (*m*) Committee on Publications—George W. Walker.
 (*n*) Committee on Public Policy and Legislation—Dwight H. Murray.
 (*o*) Committee on Scientific Work (Annual Session)—L. Henry Garland.
 (*p*) Cancer Commission—Lyell C. Kinney.
 (*q*) Editorial Board—Dwight L. Wilbur.
 B. Special Committees:
 (*a*) Delegates to the American Medical Association—Sam J. McClendon.
 (*b*) Physicians' Benevolence Committee—Axcel E. Anderson.
 (*c*) Advisory Planning Committee—John Hunton.
18. Old and Unfinished Business.
 (*a*) Constitutional Amendments.
19. New Business.

SECOND MEETING

Friday, May 2, at 4:30 p.m. In Music Room

Order of Business

1. Call to order.
2. Supplemental Report of Credentials Committee.
3. Roll Call.
4. Secretary's announcement of Council's selection of place for the 1948 annual session.
5. Election of Officers:
 (*a*) *President-Elect.*
 (*b*) *Speaker.*
 (*c*) *Vice-Speaker.*
 (*d*) *District Councilors***

 First District—Herbert A. Johnston, Anaheim (term expiring).
 First District—Imperial, Orange, Riverside, San Bernardino and San Diego counties.

 Fourth District—Axcel E. Anderson, Fresno (term expiring).
 Fourth District—Calaveras, Fresno, Kings, Madera, Mariposa, Merced, San Joaquin, Stanislaus, Tulare and Tuolumne counties.

 Seventh District—Lloyd E. Kindall, Oakland (term expiring).
 Seventh District—Alameda and Contra Costa counties.

 (*e*) *Councilors-at-Large:*

 (Note.—*Each vacancy among Councilors-at-Large, Delegates and Alternates is considered in turn. Each vacancy is voted on separately.*)

 Sidney J. Shipman, San Francisco (term expiring).
 E. Earl Moody, Los Angeles (term expiring).

 (*f*) *Delegates to the American Medical Association:*

 Delegates are elected for two calendar years. At this session of the C.M.A. House of Delegates, terms of Delegates elected for calendar years 1948-1949 will expire on December 31, 1949.

 For terms: January 1, 1948-December 31, 1949

 Incumbents

 (*a*) Robertson Ward, San Francsco (term expiring).
 (*b*) Sam J. McClendon, San Diego (term expiring).
 (*c*) Lowell S. Goin, Los Angeles (term expiring).
 (*d*) John W. Green, Vallejo (term expiring).

(*g*) *Alternates to the American Medical Association:*
- (*a*) Anthony B. Diepenbrock, San Francisco (Alternate to Robertson Ward).
- (*b*) Bon O. Adams, Riverside (Alternate to Sam J. McClendon).
- (*c*) Louis J. Regan, Los Angeles (Alternate to Lowell S. Goin).
- (*d*) H. Randall Madeley, Vallejo (Alternate to John W. Green).

(*h*) Election of new delegate to A.M.A. (term expiring December 31, 1948).

(*i*) Election of alternate to A.M.A. delegate (term expiring December 31, 1948).

6. Announcement by Secretary. Council's nominations of Members of Standing Committees. (For approval by the House of Delegates.)
7. Reports of Reference Committees:
 - (*a*) Report of Reference Committee Number 1, on "Reports of Officers and Standing Committees."
 - (*b*) Report of Reference Committee Number 2, on "Report of the Council, and Reports of Secretary-Treasurer, and Executive Secretary."
 - (*c*) Report of Reference Committee Number 3, on "Resolutions, Amendments to the Constitution and By-Laws, and New and Miscellaneous Business."
8. Unfinished Business.
9. New Business.
10. Presentation of Officers:
 President
 President-Elect
 Speaker
 Vice-Speaker
11. Presentation of Certificate to Retiring President—Sam J. McClendon.
12. Approval of Minutes. (Committee to edit.)
13. Adjournment.

E. Vincent Askey, *Speaker.*
L. Henry Garland, *Secretary.*

** *Procedure of nomination of District Councilors is outlined in paragraph 3 of Article VII, Section 1, of C.M.A. constitution, adopted on May 8, 1940:*

The nine district Councilors shall be elected as follows:

Prior to the time set for election of district Councilors, the delegates of each Councilor district for which a councilorship is about to become vacant, shall submit in writing to the Secretary-Treasurer the names of one or more nominees to fill the said vacancy.

The Secretary-Treasurer shall transmit the names of such nominee or nominees so submitted to him to the House of Delegates on or before the time set for the election.

A vote shall be taken by the House of Delegates upon the nominee or nominees so submitted and, in the event that only one nominee has been submitted, the House of Delegates may, by a majority vote, either elect or refuse to elect said nominee.

If the House of Delegates shall reject the sole nominee of the delegates from the councilorship district concerned, then said delegates must immediately thereafter submit an additional nominee or nominees and the House shall proceed to vote thereon; if there is but one nominee, the House may elect or reject.

If, after such time as the Speaker may allow, delegates within such councilor district fail to submit an additional nominee or nominees, the House of Delegates may then proceed to make nominations from the floor of the House and a vote shall then be taken by the House of Delegates to determine who shall be elected to the vacant councilorship.

All nominees for district councilorships must be members in good standing, residing within the district in which the vacancy exists.

Proposed Amendments To C.M.A. Constitution

(FIRST PUBLICATION)

First publication of two resolutions to amend the Constitution of the California Medical Association, which were introduced in the House of Delegates at the 1946 annual meeting, is made herewith:

RESOLUTION

Be It Resolved, That Section 12 of Article X of the Constitution of the California Medical Association is hereby repealed.

RESOLUTION

Resolved, That the Constitution of the California Medical Association shall be amended:

1. By deleting from Article VII, Section 1, Paragraph 4, the words, in line 6 thereof, "or more";

2. By adding to Article VII, Section 1, Paragraph 4, at the end thereof, the words, "and provided further that when any one councilor district shall have more than 1,500 members, one additional councilor-at-large for each additional 750 members or major fraction thereof shall be elected from its membership":

3. By adding to Article X, Section 1, Paragraph 1, at the end thereof, the words, "plus the additional councilors-at-large, as provided herein, in Article VII, Section 1":

4. By adding to Article X, Section 6, Paragraph 1, at the end thereof, the sentence, "Additional councilors-at-large, as provided herein, shall be elected each year when a vacancy exists or is created by increased membership in a councilor district"; and

5. By changing Article X, Section 9, Paragraph 3, thereof, to read as follows: "When a component county society shall have fifteen hundred members two of the councilors-at-large shall be elected from its membership; and when a component county society shall have more than 1,500 members, one additional councilor-at-large for each additional 750 members or major fraction thereof, as herein provided, shall be elected from its membership. The district councilor and two of the councilors-at-large shall be elected in different years in calendar sequence. The additional councilors-at-large shall be elected as herein provided."

SCIENTIFIC ASSEMBLIES

GENERAL AND SECTIONAL

General Meetings

First General Meeting

Wednesday, April 30. 10:00 A.M. Ball Room

Chairman, Sam J. McClendon, M.D., President

10:00 A.M.—Invocation—*Msgr. Thomas J. O'Dwyer.*

10:05 A.M.—Address of Welcome—*E. T. Remmen, M.D., President, Los Angeles County Medical Association.*

10:10 A.M.—Greetings from the Woman's Auxiliary —*Mrs. H. E. Henderson, President, Woman's Auxiliary to the California Medical Association.*

10:20 A.M.—Address of the President—*Sam J. McClendon, M.D., San Diego.*

10:40 A.M.—Planning the Attack on Cancer—*A. W. Oughterson, M.D., New York City.*

Paper No. 1. Since no single method of attack on the cancer problem can insure success there is need for an overall strategic plan. The objectives of such a plan are discussed in relation to the cause, prevention, and cure of cancer. Two means of achieving the objective are discussed: (1) the maximum use of the methods already available for the prevention, diagnosis, and treatment of cancer, and (2) research for new methods.

11:20 A.M.—Infectious (Viral) Hepatitis and the Public Health—*Albert M. Snell, M.D., Rochester, Minnesota.*

Paper No. 2. The recent global epidemic of viral hepatitis has left in its wake a number of problems which are of general importance. These include (1) the increased incidence of fulminant hepatitis, (2) the probability that the icterogenic agent may be transmitted by blood and blood products, and (3) the residues of hepatic damage which may progress to a more serious state. The clinical implications of these and other related problems will be discussed.

Second General Meeting

Friday, May 2. 2:00 P.M. Ball Room

Chairmen: Francis L. Chamberlain, M.D., San Francisco
H. Brodie Stephens, M.D., San Francisco

2:00 P.M.—Clinical and Physiologic Considerations in the Surgical Treatment of Duodenal Ulcer —*James T. Priestley, M.D., Rochester, Minnesota.*

Paper No. 3. The normal and pathologic physiology of the stomach and duodenum is considered in relationship with the surgical treatment of duodenal ulcer. Certain technical and clinical factors thought to be significant in the management of ulcer are discussed. Current experience with vagotomy is reviewed.

2:30 P.M.—Periodic Diseases—*Hobart A. Reimann, M.D., Philadelphia, Pennsylvania.*

Paper No. 4. There are a number of conditions which recur at regular intervals of day or weeks and persist for many years without incapacitating patients except during episodes. Among these are periodic fever, cyclic neutropenia, recurrent purpura, intermittent hydrarthrosis, recurrent myasthenia and familial periodic paralysis. Representative cases of some of these diseases are to be presented and discussed.

3:00 P.M.—The Diagnostic Problem in Gastro-Intestinal Cancer—*A. W. Oughterson, M.D., New York City.*

Paper No. 5. Since half of the total mortality from cancer is due to cancer of the gastro-intestinal tract, this problem deserves special consideration. Most of these cancers are susceptible to cure by surgery if diagnosed and treated in time. The procedure needed for early diagnosis of gastro-intestinal cancer discussed.

3:00 P.M.—Recess.

CLINICAL-PATHOLOGICAL CONFERENCE

3:35 P.M.—Case No. 1: Pathologist John Tragerman, M.D., Los Angeles; with Clinician Albert M. Snell, M.D., Rochester, Minn.

Paper No. 6.

4:05 P.M.—Case No. 2: Pathologist William O. Russell, M.D., Santa Barbara; with Clinician Hobart Reimann, M.D., Philadelphia, Pennsylvania.

Paper No. 7.

4:35 P.M.—Case No. 3: Pathologist Robert Dennis, M.D., Santa Rosa; with Clinician Edwin L. Bruck, M.D., San Francisco.

Paper No. 8.

Section Meetings



FRANCIS L. CHAMBERLAIN
Chairman, General Medicine



HOWARD O. DENNIS
Secretary, General Medicine

SECTION ON GENERAL MEDICINE

Francis L. Chamberlain, M.D., San Francisco, *Chairman*
Howard O. Dennis, M.D., Beverly Hills, *Secretary*
George B. Robson, M.D., San Francisco, *Assistant Secretary*

Wednesday, April 30. 2:00 P.M. Ball Room
Joint Meeting with Sections on Public Health, and Pediatrics

PANEL DISCUSSION ON VIRUS DISEASES

Moderator: Hobart A. Reimann, M.D.,
Philadelphia, Pennsylvania

2:00 P.M.—The Etiology and Epidemiology of the Virus Group of Encephalitides—*William McD. Hammon, M.D., San Francisco.*

Paper No. 9. The viruses chiefly responsible for the production of encephalitis in man and procedures for their detection will be noted with particular attention to those agents of importance in California. Recent developments in knowledge of mode of transmission and possible approaches to control of these virus diseases will be discussed.

2:20 P.M.—Clinical Aspects of the Encephalitides—*Paul Hamilton, M.D., San Marino.*

Paper No. 10. The diagnosis of encephalitis may be difficult. An etiologic diagnosis based on clinical findings is normally impossible. The clinical considerations which help to distinguish encephalitis from other diseases are considered, and brief comments are offered on some features usually characteristic of certain etiologic groups.

2:40 P.M.—Present Concepts of Epidemiology of Poliomyelitis—*Norman Nelson, M.D., Los Angeles.*

Paper No. 11. The virus of poliomyelitis, because of its specificity, has been a relatively difficult organism with which to work in a laboratory. Immunological studies, based upon experimentally produced disease in animals, have resulted in such a mass of difficult interpreted evidence that one is forced to return to a restudy of the disease as it occurs in man.

A Study of Age Incidence and Epidemicity as related to Virgin Soil Outbreaks, Early Poliomyelitis, Geographic Distribution, and Institutional Outbreaks, indicates: 1. That a very definite status of acquired immunity in poliomyelitis exists in the population at large; 2. Epidemics of poliomyelitis have increased throughout the world wherever hygiene and sanitation have allowed the building up of susceptibles; 3. The earlier the age at which infection with the virus of poliomyelitis takes place, the less serious is the disease produced; 4. It may well be that, paradoxically, we have actually increased the incidence of polimyelitis disease while cutting down the general rate of infection through better hygiene and sanitation by moving the age of infection into the older age groups.

3:00 P.M.—Discussion.

3:15 P.M.—Viral Pneumonias—*Hobart A. Reimann, M.D., Philadelphia, Pennsylvania.*

Paper No. 12.

3:35 P.M.—Recent Advances in Diagnosis and Prevention of Mumps and Measles—*Harold E. Pearson, M.D., Los Angeles.*

Paper No. 13. New laboratory diagnostic procedures are now available for mumps. The cultivation of the virus of mumps and measles in embryonated eggs has permitted the development of vaccines; the use of such vaccines in prevention of the diseases is discussed.

3:55 P.M.—Influenza—A Review of Recent Developments—*Monroe D. Eaton, M.D., Berkeley.*

Paper No. 14. The periodicity of epidemics of influenza A and B and the significance of related sporadic cases and localized outbreaks will be discussed. Methods, indications, and difficulties of immunization with chick embryo vaccines and recent work on the chemotherapy of the bacterial components in influenzal pneumonia will be reviewed.

4:15 P.M.—Discussion.

4:30 P.M.—Virus Studies of Etiology of Diarrhea of the Newborn—*Gordon Meiklejohn, M.D., Berkeley.*

Paper No. 15. Investigations have been directed toward isolating and propagating a filter-passing agent and to establishing its etiological relationship to this disease. The method of scarification of the rabbit's cornea, described by Buddingh and Dodds,

and other methods have been used to study material from recent California epidemics.

4:50 P.M.—Discussion.

5:00 P.M.—Meeting and Election of Officers of California Society of Internal Medicine.

Thursday, May 1. 9:30 A.M. Ball Room

Joint Meeting with Sections on General Surgery, Radiology, and General Practice

PANEL DISCUSSION ON DISEASES OF THE STOMACH

Moderator: Albert M. Snell, M.D., Rochester, Minnesota

9:30 A.M.—Psychosomatic Aspects of Stomach Diseases—*Meyer A. Zeligs, M.D., San Francisco.*

Paper No. 16. The important role which emotional and personality factors play in the production of disturbances of gastric functions will be discussed for the general medical practitioner. A simplified explanation of psychodynamic mechanisms in gastric disease, especially peptic ulcer will be presented.

9:50 A.M.—Gastric Bleeding—*Carleton Mathewson, Jr., M.D., San Francisco.*

Paper No. 17. Differential diagnosis and surgical treatment of gastric hemorrhage. Surgical management is applicable mainly to two distinct groups of gastric bleeders; (1) Massive hemorrhage that requires emergency operation to save life, and (2) chronic persistent bleeding not controlled by conservative medical management.

10:10 A.M.—Treatment vs. Prevention of Peptic Ulcer—*Theodore L. Althausen, M.D., San Francisco.*

Paper No. 18. The effectiveness of medical treatment for uncomplicated peptic ulcer will be considered. The incidence of recurrences of peptic ulcer under different types of medical practice will be analyzed. Measures for the prevention of recurrences will be discussed and a program for making these measures as effective as possible will be outlined.

10:30 A.M.—Roentgen Manifestations in Gastric and Duodenal Lesions—*Ray A. Carter, M.D. and J. E. Vickers, M.D., Los Angeles.*

Paper No. 19. A discussion of the roentgen manifestations of gastric lesions, duodenal and lower esophageal, considering them particularly from the viewpoint of lesions which are not readily distinctive of origin on roentgen evidence alone.

10:50 A.M.—Vagotomy in the Treatment of Peptic Ulcer—*John C. Jones, M.D., Los Angeles.*

Paper No. 20. The indications and contraindications for Simple Vagotomy in the various types of gastric and duodenal ulcers will be discussed, along with the advantages and disadvantages of the abdominal and thoracic approaches for vagotomy.

11:20 A.M.—Interpretation of Gastric Symptoms—*Arthur M. Hoffman, M.D., Los Angeles.*

Paper No. 21. It is well recognized that indigestion and gastric distress do not necessarily mean disease of the stomach. The anatomical overlapping of nervous impulses from contiguous organs—and the reflex gastric effects from distant organs—provides the clinician with a constant challenge as to the actual cause of gastric symptoms. A resume of the problems encountered by the practitioner is presented.

11:40 A.M.—Discussion. (Questions in writing to be passed up to the Moderator.)

Thursday, May 1. 2:00 P.M. Ball Room

Joint Meeting with California Heart Association

Francis L. Chamberlain, M.D., and
John K. Lewis, M.D., presiding

(Note: Time allotted to each of the following papers: 10 minutes; discussion 5 minutes.)

2:00 P.M.—Election of Officers, California Heart Association.

2:10 P.M.—Origin and Propagation of Cardiac Murmurs—*William J. Kerr, M.D., San Francisco.*

Paper No. 22.

2:25 P.M.—The Coronary Arteries in the Newborn and Childhood—*Arthur R. Lack, M.D., Los Angeles.*

Paper No. 23.

2:40 P.M.—Myocardial Infarction and Heart Failure—*Arthur Selzer, M.D., San Francisco.*

Paper No. 24.

2:55 P.M.—Standards for the Diagnosis of Activity and Inactivity in the Rheumatic State—*Harold Rosenblum, M.D., San Francisco.*

Paper No. 25.

3:10 P.M.—Familial Incidence of Rheumatic Fever—*Richard S. Cosby, M.D., Pasadena.*

Paper No. 26.

3:25 P.M.—The Roentgenologic Diagnosis of Syphilitic Cardiovascular Disease—*M. C. Thorner, M.D., and R. A. Carter, M.D., Los Angeles.*

Paper No. 27.

3:40 P.M.—Treatment of Cardiovascular Syphilis—*Olov A. Blomquist, M.D., Los Angeles.*

Paper No. 28.

3:55 P.M.—Recess.

4:05 P.M.—Hypersensitivity, the Common Denominator of the Collagenous Diseases—*Edward R. Evans, M.D., Pasadena.*

Paper No. 29.

4:20 P.M.—Influence of Mercurial Diuretics on Sodium Excretion—*Donald E. Griggs, M.D., and Varner Johns, M.D., Los Angeles.*

Paper No. 30.

4:35 P.M.—Peripheral Venous Pressure Studies in Some Hypotensive States—*Jack A. Scheinkoff, M.D., Sherman Oaks.*

Paper No. 31.

4:50 P.M.—Orthostatic Hypotension and Orthostatic Tachycardia—*Anton Yuskis, M.D., San Diego.*

Paper No. 32.

Friday, May 2. 9:30 A.M. Conference Room 2

9:30 A.M.—Business Meeting and Election of Officers.

SYMPOSIUM DISCUSSION ON "WHAT'S NEW"

(Time allotted to each paper: 10 minutes)

9:35 A.M.—What's New in Cardiovascular Disease—*William Paul Thompson, M.D., Los Angeles.*

Paper No. 33.

9:45 A.M.—What's New in Tropical Medicine—*Alfred C. Reed, M.D., San Francisco.*

Paper No. 34.

9:55 A.M.—What's New in Syphilis—*Charles W. Barnett, M.D., San Francisco.*

Paper No. 35.

10:05 A.M.—What's New in Infectious Diseases—*Hobart A. Reimann, M.D., Philadelphia, Pennsylvania.*

Paper No. 36.

10:15 A.M.—What's New in Pulmonary Diseases—*Reginald H. Smart, M.D., Los Angeles.*
Paper No. 37.

10:25 A.M.—What's New in Gastro-Enterology—*Albert M. Snell, M.D., Rochester, Minnesota.*
Paper No. 38.

10:35 A.M.—Recess.

10:45 A.M.—What's New in Neoplastic Disease—*A. W. Oughtersou, M.D., New York City.*
Paper No. 39.

10:55 A.M.—What's New in Endocrinology—*Paul Starr, M.D., Pasadena.*
Paper No. 40.

11:05 A.M.—What's New in Allergy—*George Piness, M.D., Los Angeles.*
Paper No. 41.

11:15 A.M.—What's New in Hematology—*Gurth Carpenter, M.D., Beverly Hills.*
Paper No. 42.

11:25 A.M.—What's New in Peripheral Vascular Disease—*Norman Freeman, M.D. San Francisco.*
Paper No. 43.

11:35 A.M.—Question and Answer Period.
Questions must be submitted in writing and directed to the particular discussant. Monitors will collect such questions during the meeting.

Friday, May 2. 2:00 P.M. Ball Room.

GENERAL MEETING

For Program, see Second General Meeting

Saturday, May 3. 9:30 A.M. Ball Room

Joint Meeting with Sections on General Practice and Urology

For Program, see Section on General Practice



H. BRODIE STEPHENS
Chairman, General Surgery



A. MORSE BOWLES
Secretary, General Surgery

SECTION ON GENERAL SURGERY

H. Brodie Stephens, M.D., San Francisco, *Chairman*
A. Morse Bowles, M.D., Santa Rosa, *Secretary*
Conrad J. Baumgartner, M.D., *Assistant Secretary*

Thursday, May 1. 9:30 A.M. Ball Room

Joint Meeting with Sections on General Medicine, General Practice, Radiology, and Neuropsychiatry

For Program, see Section on General Medicine

Thursday, May 1. 2:00 P.M. Music Room

Joint Meeting with Sections on Industrial Medicine and Surgery, and Neuropsychiatry

2:00 P.M.—Chairman's Address: The Blalock Operation for Congenital Pulmonary Stenosis—*H. Brodie Stephens, M.D., San Francisco.*
Paper No. 44. This report will summarize the results obtained in approximately twenty patients who have undergone operations because of suspected congenital pulmonary stenosis. Diodrast cardiograms constitute an important aid in diagnosis. The technique of the operation has changed little from Blalock's original description. The remarkable improvement that occurs in some of these patients is extremely gratifying.

2:20 P.M.—Surgical Treatment of Mixed Cell Tumors of the Parotid—*Edwin G. Clausen, M.D., Oakland. (Paper written jointly by Edwin G. Clausen, M.D. and Bruce Henley, M.D.)*
Paper No. 45. The high recurrence rate following simple excision of mixed cell tumors of the parotid gland indicates that a more radical procedure is necessary than has been generally employed in the past. Cases at the University of California Hospital for the past twenty years have been reviewed.

2:40 P.M.—Mesenteric Vascular Occlusion—*Albert H. Newton, M.D., Yreka.*
Paper No. 46. The occurance of mesenteric vascular occlusion is infrequent enough (573 cases reported up to 1946, with 36 cases successfully resected), to warrant a report of eight cases operated upon, and a pertinent literary review of the subject. Case reports with end results over a period of thirteen years are presented.

3:00 P.M.—Recess.

SYMPOSIUM ON BACK PAIN

Chairman of Panel: Frederick C. Bost, M. D., San Francisco

3:10 P.M.—Back Pain from the Orthopedic Standpoint—*Hugh T. Jones, M.D., Los Angeles.*
Paper No. 47. The study of back pain from the

orthopedic standpoint requires careful study by a man who is primarily a doctor of medicine and secondly an orthopedist. The fundamentals of history taking and examination must be supplemented by special orthopedic tests and observations in order to avoid costly mistakes in differential diagnosis and indications for treatment.

3:30 P.M.—Report on Post-Operative Complications and Morbidity in the Surgical Treatment of Ruptured Intervertebral Disc—*Rupert Raney, M.D., Los Angeles. (Paper written jointly by speaker and Aidan A. Raney, M.D., Los Angeles.)*

Paper No. 48. A report on post-operative complications and morbidity in the surgical treatment of the ruptured intervertebral disc. The length of hospitalization and man days lost from occupation have been reviewed and the results classified.

3:50 P.M.—Back Pain—Urological Aspect—*O. W. Butler, M.D., Los Angeles.*

Paper No. 49. Brief mention is made of the various diseases of the uro-genital tract which may have a bearing on low back pain. A few brief significant cases are reported.

4:10 P.M.—Low Back Pain and Its Management by the General Surgeon—*Edmond Dana Butler, M.D., San Francisco.*

Paper No. 50. This paper discusses the essential points in the history and physical examination of the low back patient. The anomalies and differential diagnosis by x-ray films will be briefly listed (showing x-ray projection slides if possible). The conservative office and hospital treatment will be briefly discussed.

4:30 P.M.—Back Pain from the Gynecological Standpoint—*Earl B. King, M.D., San Francisco.*

Paper No. 51. Back pain is a frequent complaint of gynecological patients. An attempt will be made to point out the implications of this symptom, and to correlate it with the clinical findings on these patients.

4:50 P.M.—General Discussion.

Questions, in writing, to be passed up to the moderator, who will inspect the same and distribute to members of the panel.

Friday, May 2. 9:30 A.M. Ball Room

Joint Meeting with Section on Anesthesiology, Radiology, General Practice, and Pathology

9:30 A.M.—Curare is a Safe Adjuvant to Light General Anesthesia—*John B. Dillon, M.D., Los Angeles.*

Paper No. 52. Curare is a safe adjuvant to light general anesthesia to produce adequate surgical relaxation. There is a certain amount of synergism between curare and general anesthetic agents, particularly ether. Curare should not be used by those unable to provide adequate ventilation of the patient under all circumstances.

9:50 A.M.—Wound Healing and Wound Disruption *E. J. Joergenson, M.D., Glendale.*

Paper No. 53. The paper is a review of faulty wound healing, its recognition and prevention, and its management once disruption occurs. Emphasis must be placed on prevention and the recognition of this complication in its early phases if this high mortality rate is to be reduced.

10:10 A.M.—Recurrent Inguinal Hernia — *Sumner Everingham, M.D., Oakland.*

Paper No. 54. Recurrent inguinal hernia occurs because of lack of the right operation properly done or lack of fundamental wound repair on part of patient. Factors considered on part of patient, those on part of surgeon. Technical errors would seem most liable, for if factors at recurrence were recognized at primary procedure, first operation would be adequate.

10:30 A.M.—Business Meeting and Election of Officers.

Panel Discussion on Breast Tumors

Chairman of Panel: Alson R. Kilgore, M.D., San Francisco

10:50 A.M.—Management of Bleeding from the Nipple—*Ian MacDonald, M.D., Los Angeles.*

Paper No. 55. The significance of bleeding nipples before and after the menopause, in terms of hyperplastic and neoplastic processes, is emphasized. The surgical management, stressing conservative treatment in the proven absence of carcinoma, is important.

11:05 A.M.—The Painful Breast—*James M. Neil, M.D., Oakland.*

Paper No. 56. Painful breast clinical syndromes are recognized, interpretation rests upon clinical correlation. Pain is of greater importance psychologically than diagnostically. Mammary self examination and pain absence in early malignancy should be stressed.

11:20 A.M.—Irradiation Therapy in Treatment of Breast Cancer—*Lowell S. Goin, M.D., Los Angeles.*

Paper No. 57. Irradiation therapy in the management of carcinoma of the breast. When shall radiation therapy be employed, when shall it be omitted entirely, which cases are suited only for surgery and which only for radiation therapy and in what cases shall the two methods be combined? The role of castration is discussed.

11:35 A.M.—Pathology of the Breast—*T. S. Kimball, M.D., Glendale.*

Paper No. 58. In lesions of the breast it is quite imperative that the surgeon and pathologist work as a team. More so than in any other possible malignant process of the body, with the possible exception of the uterus. Early carcinoma diagnosed at the time of operation has a much better chance for five-year cure.

12:05 P.M.—Inoperable Cancer of the Breast; Its Management—*Eric Reynolds, M.D., Oakland.*

Paper No. 59. Both androgens and estrogens have been used in the treatment of cancer of the breast. A delineation of some of these results is included. Care of the inoperable and the metastatic case is an important nursing and palliative challenge. Observing a tendency to be niggardly about the use of opiates in hopeless cases, a plea is made to be generous in the alleviation of suffering from this disease.

12:20 P.M.—Diagnosis of Early Breast Cancer—*William D. McCarthy, M.D., Oakland.*

Paper No. 60. Early diagnosis breast cancer on following importance of examination axilla: slight cephalad elevation nipple; slight infraclavicular edema; aspiration biopsy; trans illumination and accurate Low-Beer method for detecting and localizing lesion with intravenous radio-active phosphorus.

12:40 P.M.—General Discussion.

Questions in writing, to be passed up to the Moderator, who will inspect the same and distribute to members of the panel.



ERIC A. ROYSTON
Chairman, General Practice



STANLEY R. TRUMAN
Secretary, General Practice

SECTION ON GENERAL PRACTICE

Eric A. Royston, M.D., Los Angeles, *Chairman*
Stanley R. Truman, M.D., Oakland, *Secretary*

Wednesday, April 30. 2:00 P.M. Conference Room 8
Joint Meeting with Section on Anesthesiology

2:00 P.M.—Surgery of the Aged—*J. Norton Nichols, M.D., Los Angeles.*

Paper No. 61. A discussion of the elderly patient as a surgical risk, with some statistical information on the increased hazards due to age. Special preoperative preparation and anesthesia are included as well as certain standard surgical procedure which must be modified to suit the patient's diminished resistance.

2:20 P.M.—Discussion.

2:30 P.M.—Geriatric Anesthesia—*James Cadranel, M.D., Los Angeles.*

Paper No. 62. Individualization of premedication, anesthetic agent, dose and method is an essential requirement. Careful regulation of these factors reduces the risk usually ascribed to age. A statistical study of 1,000 cases and recommendations are presented.

2:50 P.M.—Discussion by *S. W. Sensiba, M.D., Santa Monica.*

3:00 P.M.—Proctology for the General Practitioner —*Robert Scarborough, M.D., San Francisco.*

Paper No. 63. Proper treatment of diseases of the anus, rectum and colon is dependent upon the correct interpretation of certain symptoms common to a wide variety of causes. This cannot be accomplished without adequate examination. The basic armamentarium for such examination consists of a rubber glove, lubricating jelly, a flexible probe, an anoscope, and a proctoscope, with facilities available for barium enema examination. A concise summary will be given of the differential diagnosis and treatment of the causes of the following symptoms: external peri-anal swellings, anal protrusions, pain, discharge, bleeding, disturbances of bowel habits, certain digestive symptoms and pruritus ani.

3:20 P.M.—Discussion.

3:30 P.M.—Surgery of the Diseased Ovary—*J. Ludwig Emge, M.D., San Francisco.*

Paper No. 64. The interpretation of pain in the ovarian regions and palpable physical changes of the ovaries are discussed on the basis of neuroanatomy and physiology of the generative organs. Particular attention is given to the evaluation of enlarged and cystic ovaries in relation to retention, suspension and transplantation of these organs. Surgical problems involving endometriosis and inflammatory processes, and the preservation of ovaries are discussed briefly. Surgical and roentgenologic treatment of neoplastic disease are discussed on the basis of personal experience with material collected over thirty years in the service of the Stanford Women's Clinic.

3:50 P.M.—Discussion.

4:00 P.M.—Chairman's Address—The Section on General Practice: Its Problems, Its Goals, Its Responsibilities—*Eric A. Royston, M.D., Los Angeles.*

Paper No. 65. Rightly or wrongly, the General Practice group feels its members have been and are still being discriminated against both in the metropolitan hospitals and in general administrative medicine. Accordingly, the Section feels it should have adequate representation on each hospital staff and on the Council of each county medical society. It recognizes its responsibilities to the community, to the hospital, and to medicine at large. The General Practice group is probably the last bulwark between medicine as we know it today, and the prospect of socialized medicine which is dancing on our horizon.

4:20 P.M.—Discussion.

4:30 P.M.—Business Meeting and Election of Officers.

Thursday, May 1. 9:30 A.M. Ball Room

Joint Meeting with Sections on General Medicine, General Surgery, and Radiology.

For Program, see Section on General Medicine

Friday, May 2. 9:30 A.M. Ball Room

Joint Meeting with Sections on General Surgery, Radiology, Pathology and Bacteriology, and Anesthesiology

For Program, see Section on General Surgery

Saturday, May 3, 9:30 A.M. Ball Room

Joint Meeting with Sections on General Medicine and Urology

Symposium on Arthritis

9:30 A.M.—X-ray Diagnosis and Therapy in Arthritis—*Merle F. Godfrey, M.D., Glendale.*

Paper No. 66. (1) Accurate diagnosis can best be arrived at through radiographs of the hands. (2) X-ray therapy in the arthritides is two types: a. Radiation to much inflamed joints; b. General body radiation after the manner of Gilbert Scott and Gunnar Kahlstrom and others.

9:50 A.M.—Gold Therapy in Rheumatoid Arthritis—*Hans Waine, M.D., San Francisco.*

Paper No. 67. Diagnosis of Rheumatoid Disease. The present concept of rheumatoid arthritis is that of a constitutional and systemic disease. Recognition of the early manifestations is important for good therapeutic results. The clinical characteristics of early rheumatoid disease, some of its nonarticular expressions and the use of gold salts are discussed.

10:10 A.M.—Vaccine Therapy in Treatment of Arthritis—*Raymond L. Jeffery, M.D., Los Angeles.*

Paper No. 68. Infection, although very important, is only part of arthritic syndrome; hence, vaccine constitutes only an arm of the management. Successful use of vaccines is entirely possible, and depends upon several things. First, a proper physiological diagnosis. Vaccine therapy must be accompanied by adequate physiological treatment. The vaccine must be as specific as possible. And the dosage must be individually adjusted, and properly timed.

10:30 A.M.—The Physical Therapy of Rheumatoid Arthritis—*Fred B. Moor, M.D., Los Angeles.*

Paper No. 69. The physical measures used in the treatment of rheumatoid arthritis are heat, massage, and exercise. The application of heat may be local or general, moist or dry. Heat is usually followed by massage to the muscles adjacent to the involved joints. Although rest of inflamed joints is important, yet every involved joint should be put through the maximum possible range of motion daily.

10:50 A.M.—Diet in Atrophic Arthritis—*Albert G. Boicer, M.D., Pasadena.*

Paper No. 70. Fletcher's x-ray studies at Toronto showed a marked visceroptotic colon with manifestations varying from atony to spasticity. Further, that under a low carbohydrate, maintenance protein, high fat diet with an unusually high vitamin B-complex component, the bowel gradually resumed a more nearly normal position and function, and concurrently the arthritic symptoms improved.

11:10 A.M.—Principles and Methods of Treatment of the Chronic Arthritides—*Bernard L. Wyatt, M.D., Los Angeles.*

Paper No. 71. The principles of treatment of the chronic arthritides are: a. The patient must assume personal obligations and responsibilities in the "partnership"; b. Composite programs of therapy are different for the different clinical types; c. Every patient's treatment must be based upon individual indications and requirements. Treatment measures *of proved and unproved value* will be presented under these captions.

11:30 A.M.—The Treatment of Deformities in Chronic Arthritis—*John C. Wilson, M.D., Los Angeles.*

Paper No. 72. Any discussion of the treatment of deformities in chronic arthritis must have as its first consideration the methods for the prevention of such deformities. The use of splints, traction, stretching and other forms of physical therapy together with the surgical management of these conditions will be discussed. Some of the pitfalls encountered in the surgical treatment of deformities due to chronic arthritis will be mentioned. The position of choice for fusion of joints will also be briefly discussed.

Symposium on Urinary Tract Infections

11:50 A.M.—Medicine—*Charles A. Noble, M.D., San Francisco.*

Paper No. 73.

12:10 P.M.—Urology—*Sidney Olsen, M.D., San Francisco.*

Paper No. 74.

12:30 P.M.—Discussion.



JOHN A. STILES
Chairman, Anesthesiology



IDA HEISSIG
Secretary, Anesthesiology

SECTION ON ANESTHESIOLOGY

John A. Stiles, M.D., San Francisco, *Chairman*
Ida Heissig, M.D., Altadena, *Secretary*

Wednesday, April 30. 2:00 P.M. Conference Room 8

Joint Meeting with Section on General Practice

For Program, see Section on General Practice

2:30 P.M.—Recess to Room 5 for Second Half of Program.

2:40 P.M.—Chairman's Address: Two Case Reports —*John A. Stiles, M.D., San Francisco.*

Paper No. 75. (1) Rupture of a bronchus immediately following a pneumonectomy with respiratory exchange limited and finally stopping due to increased intrathoracic pressure, relieved first by reintubation and then by aspiration and closed drainage of the chest.

(2) A 62-year-old man with hiccups of 40 days' duration who was treated with CO_2 inhalations, attempted phrenic block, intocostrin and finally large doses of intramuscular sodium amytal.

3:00 P.M.—Anesthesia in Thoracic Surgery—*L. M. Taylor, M.D., San Bernardino.*

Paper No. 76. Consideration of the physiological alterations in the surgical pneumothorax. Anesthesia experiences in a thoracic surgical center in the U. S. Army. Methods of administering anesthetics in over 200 major thoracic surgical cases including resections in infants.

3:20 P.M.—Discussion by *Thomas B. Wiper, M.D., Belmont.*

3:30 P.M.—A Preliminary Report on Anesthesia for the Fenestration Operation—*William G. Meals, M.D., Los Angeles.*

Paper No. 77. A review of 300 cases for the Fenestration Operation is made. This includes premedication, type of anesthesia, procedure for the anesthesia, results, and a study of the complications thereof.

3:50 P.M.—Discussion by *Howard P. House, M.D., Los Angeles.*

Thursday, May 1. 2:00 P.M. Conference Room 4

Joint Meeting with Section of Obstetrics and Gynecology

For Program, see Section on Obstetrics and Gynecology

2:30 P.M.—Recess to Room 6 for Second Half of Program.

2:40 P.M.—Further Experience with Pontocaine-Dextrose-Ephedrine for Spinal Anesthesia—*Forrest E. Leffingwell, M.D., and Arthur J. Martinson, M.D., Los Angeles.*

Paper No. 78. Introductory discussion of the work done by the original and subsequent investigators and a presentation of the authors' experience with this procedure, including statistics covering their series up to date, with a discussion of the findings and conclusions drawn therefrom as to the value of the technique.

3:00 P.M.—Discussion by *C. F. McCuskey, M.D., Los Angeles.*

3:10 P.M.—Low Dosage with Continuous Spinal Anesthesia—*Charles C. Wycoff, M.D., San Francisco.*

Paper No. 79. A dosage as low as 10 mg. increments of Intracaine may be used to attain and maintain relaxation and anesthesia for abdominal surgery with the ureteral catheter continuous spinal. Pontocaine in 1 mg. doses may also be used. Certain patients require less agent, and others require more.

3:30 P.M.—Discussion by *Ernest Warnock, M.D., Los Angeles.*

3:40 P.M.—Business Meeting and Election of Officers.

Friday, May 2. 9:30 A.M. Ballroom

Joint Meeting with General Surgery

For Program, see Section on General Surgery



FRANCES TORREY
Chairman,
Dermatology and Syphilology



E. V. ALLINGTON
Secretary,
Dermatology and Syphilology

SECTION ON DERMATOLOGY AND SYPHILOLOGY

Frances Torrey, M.D., San Francisco, *Chairman*
Hiram D. Newton, M.D., San Diego, *Vice-Chairman*
E. V. Allington, M.D., Oakland, *Secretary*

Thursday, May 1. 9:30 A.M. Conference Room 9

9:30 A.M.—Lymphocytoma — *Walter F. Schwartz, M.D., Pasadena.*

Paper No. 80. Lymphocytoma is a rare lymphoid tumor of the skin. It has not been previously described in American dermatological literature. A case is reported. The usual location and clinical appearance of the lesions are fairly characteristic, but a definite diagnosis depends on histologic study.

9:50 A.M.—Discussion by *N. P. Anderson, M.D., Los Angeles.*

10:00 A.M.—The Differential Diagnosis of Some of the Benign Tumors of the Skin—*Arne E. Ingels, M.D., San Francisco.*

Paper No. 81. The clinical and histopathological features of von Recklinghausen's disease, sebaceous adenomas, sweat gland tumors, neuromas, senile warts, and other tumors are described. The possible relationship between von Recklinghausen's disease and tuberous sclerosis is discussed. Curative procedures are outlined.

10:30 A.M.—Discussion by *Clement E. Counter, M.D., Long Beach, and Edward J. Ringrose, M.D., Berkeley.*

10:40 A.M.—The Precancerous Dermatoses with Special Reference to Their Histologic Diagnosis—*Walter R. Nickel, M.D., San Diego.*

Paper No. 82. A consideration of the histologic changes in the various layers of the skin in the precancerous dermatoses with special reference to benign and malignant dyskeratotic phenomena. Clinical and micro-photographs will be shown.

11:10 A.M.—Discussion by *Ervin H. Epstein, M.D., Oakland, and Mollenrus Couperus, M.D., Los Angeles.*

11:20 A.M.—The Treatment of Epitheliomas—A Critical Review of Methods Employed During the Past Twenty-five Years—*W. W. Duemling, M.D., San Diego.*

Paper No. 83. Various methods, from Sherwell's curet and caustic to the present day topical application of radioactive phosphorus, are reviewed. Emphasis is given to the need of first selecting the proper therapeutic agent to meet a given situation and then applying the chosen agent in a skillful and adequate manner.

11:50 A.M.—Discussion by *H. J. Templeton, M.D., Oakland, and Hiram Newton, M.D., San Diego.*

12:00 Noon—Chairman's Address: The Visible Tumor Clinic at the University of California Medical School—*Francis Torrey, M.D., San Francisco.*

Paper No. 84. History of the development of the Visible Tumor Clinic at the University of California Medical Center. Its organization and comparison with similar clinics in other medical schools. Discussion of the value of the organization—for interdepartmental correlation in the diagnosis and treatment of skin malignancy, for postgraduate teaching and as a consultation clinic for the benefit of patients and referring physicians.

12:20 A.M.—Discussion by *A. W. Oughterson, M.D., New York City.*

Thursday, May 1. 2:00 P.M. Conference Room 9

2:00 P.M.—Treatment of Superficial Fungus Infections in Routine Dermatologic Practice—*Rees B. Rees, M.D., San Francisco.*

Paper No. 85. An evaluation of methods used and results obtained in the treatment of dermatophytosis of the feet, groin, body, and tinea capitis by the Dermatology Staff of the University of California. Higher fatty acids and other currently popular agents will receive attention.

2:25 P.M.—Discussion by *J. Walter Wilson, M.D., Los Angeles, and Robert A. Stewart, M.D., Berkeley.*

2:35 P.M.—Benadryl and Pyribenzamine in the Treatment of Skin Diseases—*Grant Morrow, M.D., San Francisco.*

Paper No. 86. Benadryl and pyribenzamine are new synthetic anti-histamine drugs. They have been used in the treatment of urticaria, erythema multiforme, erythema nodosum and pruritus from various causes. Results are encouraging. The incidence of toxic reactions, results and differences between the two drugs will be discussed.

3:00 P.M.—Discussion by *Katherine McEachern, M.D., Los Angeles, and James R. Drake, M.D., San Francisco.*

3:10 P.M.—The Use of Vitamin A in the Treat-

ment of Skin Diseases—*Frances M. Keddie, M.D., San Francisco.*

Paper No. 87. This paper is concerned with the problem of utilization of Vitamin A and the problem of dosage rather than with its clinical application. A case of pityriasis rubra pilaris which responded to treatment with Vitamin A given parenterally but not to oral administration will be discussed.

3:35 P.M.—Discussion by *Maximilian E. Obermayer, M.D., Los Angeles, and Charles W. McNitt, M.D., Reno, Nevada.*

3:45 P.M.—Some Aspects of Dermatological Treatment with Vitamin B Complex—*Harry Levitt, M.D., Los Angeles.*

Paper No. 88. This paper deals with the role of Vitamin B complex in the pathogenesis and treatment of certain cutaneous disorders, especially as it influences carbohydrate metabolism and in its relation to cutaneous infection. Emphasis is placed on the use and action of the various fractions as a group rather than individually.

4:10 P.M.—Discussion by *Charles A. Shumate, M.D., San Francisco, and Julius R. Scholtz, M.D., Los Angeles.*

4:20 P.M.—The External Use of Carbitol Solvent—*Willard M. Meininger, M.D., San Francisco.*

Paper No. 89. Carbitol solvent (diethylene glycol monoethyl ether) is an ingredient of many cosmetics. Toxicity levels have been demonstrated in experimental animals following its ingestion, injection, and topical application. This compound was prescribed for external use in several common formulas to determine its utility and possible toxic effects in man.

4:45 P.M.—Discussion by *Ben A. Newman, M.D., Los Angeles, and M. T.-R. Maynard, M.D., San Jose.*

Friday, May 2. 9:30 A.M. Conference Room 9

9:30 A.M.—The Intensive Ambulatory Treatment of Early Syphilis with Penicillin, Arsenicals, and Bismuth—*Paul Fasal, M.D., San Francisco.*

Paper No. 90. Ten injections of calcium penicillin in oil and wax combined with arsenicals and bismuth have apparently given satisfactory results. Reactions resulting therefrom are discussed and suggestions are presented for reduction of their incidence. The socio-economic advantages of this treatment are presented.

9:55 A.M.—Discussion by *Thomas H. Sternberg, M.D., Los Angeles, and Richard A. Koch, M.D., San Francisco.*

10:05 A.M.—Reinfection in Syphilis—*Norman N. Epstein, M.D., San Francisco.*

Paper No. 91. The criteria for indisputable reinfection in syphilis are so exacting as to make it almost impossible to meet these requirements clinically. There is a growing tendency to diminish the strictness of these criteria. Two cases are reported in which reinfection undoubtedly occurred. The relation between reinfection, superinfection, and relapse is discussed.

10:30 A.M.—Discussion by *Kenneth L. Stout, M.D., Los Angeles, and David Frost, M.D., Oakland.*

10:40 A.M.—Syphilis in Pregnancy—*Charles W. Barnett, M.D., San Francisco, and John Marion Read, M.D., San Francisco.*

Paper No. 92. A review of a series of cases from the Stanford Clinics leads to the conclusion that syphilis is not as hazardous in pregnancy as it is reputed to be. The incidence of prenatal syphilis is relatively low if positive cord bloods are not considered diagnostic of syphilis.

11:05 A.M.—Discussion by *A. Fletcher Hall, M.D., Santa Monica, and Norman N. Epstein, M.D., San Francisco.*

11:15 A.M.—Management of Neurosyphilis—*Thomas H. Sternberg, M.D., Los Angeles, Paul Le Van, M.D., Los Angeles, and R. Raymond Allington, M.D., Los Angeles.*

Paper No. 93. This paper deals with a group of patients with neurosyphilis treated with penicillin alone and penicillin in combination with malaria. The results are evaluated and certain conclusions presented. The current literature on this subject is reviewed.

11:40 A.M.—Discussion by *George V. Kulchar, M.D., San Francisco, and Julius R. Scholtz, M.D., Los Angeles.*

11:50 A.M.—Business Meeting and Election of Officers.



PIERRE VIOLE
Chairman,
Eye, Ear, Nose and Throat



DOHRMANN K. PISCHEL
Secretary,
Eye, Ear, Nose and Throat

SECTION ON EYE, EAR, NOSE AND THROAT

Pierre Viole, M.D., Los Angeles, *Chairman*
George L. Kilgore, M.D., San Diego, *Vice-Chairman*
Dohrmann K. Pischel, M.D., San Francisco, *Secretary*

Thursday, May 1, 2:00 P.M. Conference Room 2

2:00 P.M.—Otomycosis; Therapy of Proved Efficacy—*Ben Bryant, M.D., Los Angeles.*

Paper No. 94. The fallacy of former methods of treatment is considered to explain the so-called recurrences in cases of otomycosis. Therapy is outlined as directed at two distinct phases: (1) the secondary, acute, external otitis and its complications; (2) the underlying mycosis. Prescriptions for the medications used are given and certain essential points pertaining to their use are emphasized. 4,610 consecutive cases of otomycosis are reported, treated by the method outlined and without recurrence. In conclusion, a series of nine rules is listed to govern the treatment of otomycosis and its complications.

2:20 P.M.—Discussion.

2:30 P.M.—Current Trends in the Technique of Tonsillectomy—*Durwin Hall Brownell, M.D., San Diego.*

Paper No. 95. After outlining his technique for removal of the tonsils and adenoids and a resume of the literature on tonsillectomy, the author analyzes the data obtained from replies to a questionnaire sent to the members of the American Laryngological, Rhinological and Otological Society.

2:50 P.M.—Discussion.

3:00 P.M.—Principles of Aural Rehabilitation—*Grant Fairbanks, Ph.D., Los Angeles. (By invitation).*

Paper No. 96. Description of modern techniques in aural rehabilitation. Special attention to hearing aid selection and supervision, auditory training, lip reading instruction, speech correction and psychological counseling. Emphasis on integration of the medical, surgical, acoustical, educational and psychological phases.

3:20 P.M.—Discussion.

3:30 P.M.—The Treatment of Acute Neck Infections—*Colby Hall, M.D., Los Angeles.*

Paper No. 97. In dealing with acute neck infections the immediate condition of the patient is of prime importance. It is imperative that the patient's general condition be considered while we are debating as to the exact diagnosis. The differential diagnosis and the applied anatomy of the pharyngomaxillary space, the masticator space, Ludwig's, and other suprahyoid areas are important. One must remember that a pathological diagnosis must be considered if rational therapy is to be applied to suppurative, non-suppurative, and/or vascular involvement. Thrombophlebitis, arterial erosion, tetanus, and diphtheria are among the diagnoses which we must keep in mind. The practical application of our anatomical knowledge is essential in the clinical management of acute neck infections.

3:50 P.M.—Discussion.

4:00 P.M.—Condition Response in Children—*Russell Decker, M.D., Pasadena.*

Paper No. 98. This is a film showing the reaction of children to sound vibrations. First a normal hearing child of one year is shown and the normal response to certain sounds. Then a one year old child of suspected deafness is shown and responses to the same sounds. Children with known deafness from one to twelve years of age are shown being tested for various degrees of hearing loss.

4:20 P.M.—Discussion.

4:30 P.M.—Motion pictures on topics of interest to the specialty.

Friday, May 2, 2:00 P.M. Conference Room 2

2:00 P.M.—Business Meeting and Election of Officers.

2:05 P.M.—Psychosomatics in Eye, Ear, Nose and Throat Practice—*Kenneth Brandenburg, M.D., Long Beach.*

Paper No. 99. Several case histories will be given showing the part emotional conflicts play in the causation of symptoms complained of by eye, ear, nose, and throat patients.

2:25 P.M.—Discussion.

2:35 P.M.—The Scleral Resection Operation for Retinal Detachment—*William E. Borley, M.D., San Francisco.*

Paper No. 100. This operation was first proposed by Leopold Muller in 1903 for the treatment of retinal detachment in high myopia. It was his belief that detachment in highly myopic eyes resulted from a transudation under the retina due to a stretching of the choroid. The operation as done at

the present time is a modification of the original procedure and in the author's experience is indicated either alone or in combination with diathermy in cases of detachment with large disinsertion following trauma, and in cases of detachment following congenital retinal septa. It has also proved useful in cases of retinal detachment in aphakic eyes.

2:55 P.M.—Discussion.

3:05 P.M.—The Argyll-Robertson Pupil as an Isolated Neurological Sign in Central Nervous System Syphilis—*George S. Lachman, M.D., San Francisco.*

Paper No. 101. The true Argyll-Robertson pupil is an infallible sign of central nervous system syphilis. In standard text books of neurology and in a considerable number of case reports in the literature the Argyll-Robertson phenomenon is described in conditions other than syhpilis, e.g., tumors of the mid-brain. These are not true Argyll-Robertson pupils because the criteria comprising the sign are not satisfied. The various theories as to the location of the lesion are evaluated. From the records of the medical out-patient department of Stanford Hospital, the Argyll-Robertson pupil was found to be the only neurological evidence of central nervous system syphilis in 32 cases.

3:25 P.M.—Discussion.

3:35 P.M.—Acute Central Ulcers of the Cornea—*Phillips Thygeson, M.D., San Jose.*

Paper No. 102. In a study of 50 central ulcers of the cornea the causative agents were found to be limited to five bacteria, i.e., pneumococcus, beta hemolytic streptococcus, pyocyaneus bacillus (pseudomonas aeruginosa), Friedlander's bacillus (Klevsiella pneumoniae), and the Diplobacillus of Petit. In this report the clinical course of each type is outlined and the results of therapy, particularly with chemotherapeutic and antibiotic agents, is discussed.

3:55 P.M.—Discussion.

4:05 P.M.—Intraocular Foreign Bodies in Naval Personnel—*Hugo Lucic, M.D., San Diego.*

Paper No. 103. Within a period of 3½ years of the recent war, approximately 95 cases of intraocular foreign bodies were treated at one of the Naval Base Hospitals on the Pacific Coast. The records of 68 patients were analyzed. Forty of these 68 men were injured in combat and the remaining 28 in the course of military training or work, usually in the vicinity of the hospital. Of those injured in action, 35 harbored particles which were presumed to be non-magnetic, and the other 5 had magnetic particles. Of the 28 men who were injured at work or in the course of training, 21 had magnetic and 7 non-magnetic particles.

A discussion on the diagnosis of intraocular foreign bodies, their localization and treatment is illustrated by individual cases and hy lantern slides. It is remarkahle that not a single case of sympathetic ophthalmia occurred among hundreds of penetrating ocular injuries which were seen throughout the war at one of the largest Naval Hospitals.

4:25 P.M.—Discussion.

4:35 P.M.—Motion pictures on topics of interest to the specialty.

SECTION ON INDUSTRIAL MEDICINE AND SURGERY

Richard J. Flamson, M.D., Los Angeles, *Chairman*
Keene O. Haldeman, M.D., San Francisco, *Vice-Chairman*
Joseph D. Peluso, M.D., Los Angeles, *Secretary*



RICHARD J. FLAMSON
Chairman,
Industrial Medicine and Surgery



JOSEPH D. PELUSO
Secretary,
Industrial Medicine and Surgery

Thursday, May 1. 2:00 P.M. Music Room

Joint Meeting with Sections on General Surgery and Neuropsychiatry

For Program, see Section on General Surgery

Friday, May 2. 2:00 P.M. Conference Room 8

Joint Meeting with Sections on Neuropsychiatry and Radiology

2:00 P.M.—Radicular Pain in the Upper Limbs—*John B. Doyle, M.D., Los Angeles.*

Paper No. 104. The differential diagnosis of radicular pain in the upper limbs is a problem of importance. It is discussed in some detail with a view to establishing the fundamental etiological factors upon which are predicated suitable treatment.

2:20 P.M.—Discussion.

2:30 P.M.—Chronic Shoulder Pain—*Alonzo J. Neufeld, M.D., Los Angeles.*

Paper No. 105. This discussion is limited to a hrief review of the physiology of shoulder function

and the pathology of the common conditions responsible for shoulder pain; namely, acute sprain with or without chronic degenerative disease; chronic myalgia, shoulder capsulitis, and tendonitis with or without calcification. The popular modalities of therapy will be discussed in their relation to the pathology and their influence on disability.

2:50 P.M.—Discussion.

3:00 P.M.—Roentgen Rays in the Diagnosis and Treatment of the Painful Shoulder—*James B. Irwin, M.D., San Diego.*

Paper No. 106. The paper will discuss the causes of the painful shoulder, the role of chronic bursitis in causing shoulder pain, the incidence and location of calcium around the shoulder, and the indications for and the results of x-ray therapy in the various types of shoulder lesions.

3:20 P.M.—Discussion.

3:30 P.M.—Clinical Picture Associated with Rupture of the Intervertebral Disc in the Cervical Region—*O. W. Jones, Jr., M.D., San Francisco.*

Paper No. 107. Several neurological conditions may cause symptoms referrable to the neck and shoulder region. Careful neurological examination to rule out such possibilities as cervical rib, the scalenus anticus syndrome, radicular pain, cord tumor, and rupture of the cervical intervertebral disc should be done in all patients with confusing clinical pictures involving the neck, high back, shoulder, and arm. Differential diagnostic considerations with special reference to the relatively new clinical entity, ruptures of the intervertebral disc in the cervical region, will be discussed.

3:50 P.M.—Discussion by *Edwin B. Boldrey, M.D., San Francisco.*

Saturday, May 3. 9:30 A.M. Conference Room 8

9:30 A.M.—Business Meeting and Election of Officers.

10:00 A.M.—Epiphyseal Disease in Industrial Surgery—*Harold E. Crowe, M.D., Los Angeles.*

Paper No. 108. Epiphyseal disease and industrial surgery are subjects usually thought of as unrelated. This is true where child labor is illegal. However, the osteochondritides of the adolescent years produce physical disabilities of which the worker may be entirely unaware at the time of employment. X-rays will be exhibited of these lesions which, under stress of heavy labor, become symptomatic and must be adjudged as aggravations of pre-existing conditions under the present industrial accident laws.

10:20 A.M.—Discussion.

10:30 A.M.—Partial Excision of Clavicle in Rheumatoid Arthritis—*Frederic W. Ilfield, M.D., Los Angeles.*

Paper No. 109. Partial cleidectomy has been done in six patients with rheumatoid arthritis. All of these patients complained of shoulder pain and limitation of motion. Following operation, there was marked relief of pain and marked increase in shoulder motion. After partial excision of the clavicle, there was an immediate increase in shoulder motion of from 15 to 35 degrees on the operating table while the patient was still under anesthesia. Postoperative shoulder motion, active, increased from 40 to 160 degrees.

10:50 A.M.—Discussion.

11:00 A.M.—The Response of Articular Cartilage to Trauma with Special Reference to the Knee Joint—*Keene O. Haldeman, M.D., and Ralph Soto-Hall, M.D., San Francisco.*

Paper No. 110. Because it is a highly specialized form of connective tissue, articular cartilage lacks regenerative power. The knee joint, due to its complexity and exposed position, is subject to single or oft repeated traumata. The behavior of cartilage in these conditions has been studied clinically and experimentally as an aid to diagnosis and treatment.

11:20 A.M.—Discussion.

11:30 A.M.—Delayed Tetanus Infection—*Joseph D. Peluso, M.D., Los Angeles.*

Paper No. 111. This paper discusses delayed or late tetanus. Three cases will be presented, in which tetanus developed many weeks following the initial injury. In each case, the patient received a prophylactic dose of antitetanus serum. One patient also received penicillin. In spite of the prophylactic doses, all cases developed tetanus: two of them with marked symptoms. All recovered. This paper will also refer to experiences in the Army and Navy in the late war, following the use of toxoid as prophylactic.

11:50 A.M.—Discussion.



ARTHUR R. TIMME
Chairman, Neuropsychiatry



ROBERT B. AIRD
Secretary, Neuropsychiatry

SECTION ON NEUROPSYCHIATRY

Arthur R. Timme, M.D., Los Angeles, *Chairman*
Robert B. Aird, M.D., San Francisco, *Secretary*

Thursday, May 1. 9:30 A.M. Music Room

9:30 A.M.—Intradiploic Epidermoid Tumors—*Leo J. Adelstein, M.D., Los Angeles.*

Paper No. 112. These so-called "pearly tumors" of the skull, while rare, may be associated with head trauma and produce neurologic findings, as well as cosmetic deformity. Report of two cases.

9:50 A.M.—Discussion by *David L. Reeves, M.D., Santa Barbara.*

10:00 A.M.—Electroshock and Other Therapeutic Considerations in Sexual Psychopathy—*George N. Thompson., M.D., Los Angeles.*

Paper No. 113. Treatment of the psychopathic personality presents the most difficult problems met by the psychiatrist. Psychoanalysis is at present the therapy most frequently utilized. Other methods have little to offer. Chemotherapy is unsatisfactory; neurosurgery offers the greatest hope for the future, but at present has not developed efficacious techniques. The shock therapies, particularly convulsive shock therapy, are evaluated, and a series of cases treated by this method is presented. Results of therapy are evaluated.

10:20 A.M.—Discussion by *J. M. Nielsen, M.D., Los Angeles.*

10:30 A.M.—The Suppression of Electric Shock and Electronarcosis by Modification of the Current Level—*Esther Bogen Tietz, M.D., Arcadia, Clarence W. Olsen, M.D., and William R. Rosanoff, M.D., Los Angeles.*

Paper No. 114. A report will be presented of our experience in eliminating the initial and closing contraction during electronarcosis and electric shock by means of rapidly increased and decreased currents. This method eliminates the risk of compression fractures without the use of Curare.

10:50 A.M.—Discussion by *James Solomon, M.D., Compton.*

11:00 A.M.—Facial Pain—*Howard C. Naffziger, M.D., and Edward W. Davis, M.D., San Francisco.*

Paper No. 115. An analysis of the cases of trigeminal neuralgia seen at the University of California Hospital with particular reference to the characteristics of pain in tic douloureux. Comments on atypical pain and postoperative dysesthesias.

11:20 A.M.—Discussion by *Nathan Norcross, M.D., San Francisco.*

11:30 A.M.—Massive Protrusion of the Intervertebral Disc Producing Compression of the Cauda Equina—*Howard A. Black, M.D., Sacramento.*

Paper No. 116. Writings pertaining to this important clinical entity, massive posterior protrusion of the intervertebral disc producing compression of the cauda equina, have been submerged by the recent flood of literature on the more common unilateral disc syndrome implicating a single root. The purpose of this communicating is to report 12 cases illustrating the condition under consideration, and, by analysis of the cases, to indicate features which may aid accurate preoperative diagnosis; and also to stress the importance of prompt recognition and surgical intervention, less incapacitation follow delay in alleviation of the compression of the cauda equina.

11:50 A.M.—Discussion by *O. W. Jones, Jr., M.D., San Francisco.*

Thursday, May 1. 2:00 P.M. Music Room

Joint Meeting with Sections on General Surgery and Industrial Medicine and Surgery

For Program, see Section on General Surgery

Friday, May 2. 9:30 A.M. Conference Room 8

9:30 A.M.—Business Meeting and Election of Officers.

9:45 A.M.—Chairman's Address: The Choreiform Syndrome. Its Significance in Children's Behavior Problems—*Arthur R. Timme, M.D., Los Angeles.*

Paper No. 117. Syndrome is described, which this observer has found to be at the core of probably a majority of school behavior problems. This is an organic syndrome usually overlooked in orthodox Child Guidance procedure or erroneously attributed to purely emotional factors.

10:05 A.M.—The Treatment of Epilepsy with Methylphenylethyl Hydantoin (Mesantoin)—*Robert B. Aird, M.D., San Francisco.*

Paper No. 118. Methylphenylethyl hydantoin (Mesantoin) is chemically related to diphenyl hydantoin (Phenytoin). This new anticonvulsive agent proved of definite value in a high percentage of

patients with convulsive states of the Jacksonian or grand mal types, who were toxic to or could not be controlled by the sodium salt of diphenylhydantoin. Although toxic in a small percentage of patients, it appeared to be as safe as, if not more safe than, phenytoin and should be an important addition to our therapeutic armamentarium in epilepsy.

10:25 A.M.—Discussion by *Eugene Ziskind, M.D., Los Angeles.*

10:35 A.M.—Surgical Treatment of Epilepsy. Pathologic Etiology Other Than Tumor—*William T. Grant, M.D., Los Angeles.*

Paper No. 119. Epilepsy is too often regarded as a disease rather than a symptom of some pathologic condition that is irritating the brain. The first problem in caring for a patient with epilepsy is to decide what area of the brain is being irritated to cause an attack and to ascertain the character of the abnormality at the firing-point. The purpose is to present briefly a few cases in which attacks were not controlled by medical measures and in which a wide variety of pathologic conditions was found. Surgical treatment produced results ranging from satisfactory improvement to complete cure.

10:55 A.M.—Discussion by *William F. Northrup, Jr., M.D., Pasadena.*

11:05 A.M.—Paralysis of Eye Muscles Associated with Intracranial Aneurysms—*E. B. Boldrey, M.D., and Earl Miller, M.D., San Francisco.*

Paper No. 120. Sudden paralysis or paresis of one or all of the muscles supplied by the third cranial nerve should suggest the possibility of intracranial saccular aneurysm of the carotid artery near the course of this nerve. The fourth and sixth cranial nerves may be affected but are not involved as frequently. If there is associated exophthalmus, particularly of the pulsating type, an arteriovenous aneurysm between the carotid artery and cavernous sinus is suspected. The diagnosis of both saccular aneurysm of the carotid and its branches and arteriovenous aneurysms of the carotid and cavernous sinus can be aided by carotid arteriography. Treatment directed toward the prevention of a fatal rupture and death can be instituted when the diagnosis has been arteriographically established.

Friday, May 2. 2:00 P.M. Conference Room 8

Joint Meeting with Sections on Industrial Medicine and Surgery and Radiology

For Program, see Section on Industrial Medicine and Surgery

Saturday, May 3. 9:30 A.M. Music Room

Joint Meeting with Sections on Public Health and Pediatrics

9:30 A.M.—Recent Developments in Mental Health Planning—With Special Reference to the National Mental Health Act—*Lawrence Kolb, M.D., Sacramento (by invitation).*

Paper No. 121. The National Mental Health Act, through its broad provisions for grants-in-aid to states, universities, hospitals, clinics, and individuals for research, the training of personnel, and the assistance in developing preventive mental health programs, will have a far-reaching effect in bringing the importance of mental health before the public and profession and in the development of better means for prevention and cure of mental disease.

9:50 A.M.—Discussion by *Edwin E. McNiel, M. D., Los Angeles.*

10:00 A.M.—Mental Health in the Public Health Program—*Kent A. Zimmerman, M.D., San Francisco (by invitation).*

Paper No. 122. In addition to the usual treatment for personality problems of children, there is a place for prophylactic use of psychiatry in general medicine. By providing an opportunity for physicians and nurses to learn about the emotional structure of the patient-physician relationship, more about the use of the personality as a therapeutic tool, it is felt that those who have had no special psychiatric training can in their everyday practice better treat the emotional component of illness. That part of the health department program in which this experiment is at first to be attempted will be the prenatal, well child, crippled children, and school health clinics.

10:20 A.M.—Discussion by *Oscar Reiss, M.D., Los Angeles.*

10:30 A.M.—The Importance of an Organized Mental Hygiene Program in the Schools—*C. Morley Sellery, M.D., Los Angeles (by invitation).*

Paper No. 123. The mental health problems and needs of school children and the importance of a well-organized mental health program of instruction, guidance, and counseling; the function and operation of child guidance clinics within the school system in solving and preventing the behavior disturbances and neuroses of school children will be discussed.

10:50 A.M.—Discussion by *Marion B. Durfee, M.D., Los Angeles (by invitation).*

11:00 A.M.—A Pediatrician's Observations on Mental Hygiene—*Victor E. Stork, M.D., Los Angeles.*

Paper No. 124. The needs of the growing child for mental health and the role of the pediatrician in the prevention of mental difficulties. How he can foster normal attitudes and relationships and correct some common errors in child management and training.

11:20 A.M.—Discussion by *Carl A. Erickson, M.D., Pasadena.*



PHILIP A. REYNOLDS
Chairman,
Obstetrics and Gynecology



A. M. McCAUSLAND
Secretary,
Obstetrics and Gynecology

SECTION ON OBSTETRICS AND GYNECOLOGY

Philip A. Reynolds, M.D., Los Angeles, *Chairman*
T. Floyd Bell, M.D., Oakland, *Vice-Chairman*
A. M. McCausland, M.D., Los Angeles, *Secretary*

Wednesday, April 30. 2:00 P.M. Conference Room 2

Joint Meeting with Section on Radiology

2:00 P.M.—Lateral Soft Tissue X-Ray in the Diagnosis of Placenta Praevia—*W. R. Schumann, M.D., Los Angeles.*

Paper No. 125. The use of the lateral soft tissue film in the diagnosis of placenta praevia is discussed. The interpretive results of 415 films are reported, and the accuracy assayed by clinical correlation. Using criteria evolved in the accumulation of this series, the films were re-read. The improved results in the second reading are believed to validate these criteria. It is the opinion of the essayist that the obstetrician can, by utilizing these diagnostic criteria, avail himself of a useful adjunct in the management of the suspected placenta praevia.

2:20 P.M.—Discussion by *Monrad E. Aaberg, M.D., Los Angeles, and Kenneth Davis, M.D., Los Angeles.*

2:30 P.M.—Volumetric Readings in Obstetrics—*Douglas R. MacColl, M.D., Los Angeles.*

Paper No. 126. An attempt to determine the value of volume (fetal skull) and volume capacity (maternal pelvis) determinations, and any relationship between fetal skull volume and weight of the baby at birth.

2:50 P.M.—Discussion.

3:00 P.M.—Relative Importance of X-ray Pelvimetry—*Frank Norris, San Francisco.*

Paper No. 127. Contemporary methods of x-ray pelvimetry are reviewed. An attempt is made to integrate x-ray measurements of the pelvis with the dynamics of labor in prognosticating dystocia.

3:20 P.M.—Discussion.

3:30 P.M. — Uterosalpingography — *Edward Leef, M.D., Fresno.*

Paper No. 128. It is important in sterility to know whether the tubes from the uterus are open or closed. If they are closed, then of course it would not be possible for the individual to become pregnant, for the seed could not then come in contact with the egg. If the tubes are open, pregnancy is possible to attain provided both husband and wife are not sterile for another reason. An opaque oil injected into the uterus and into the tubes outlines these structures when an x-ray film is made of the pelvic region and shows if the uterus and tubes are in a normal condition.

3:50 P.M.—Discussion.

Thursday, May 1. 2:00 P.M. Conference Room 4

Joint Meeting with Section on Anesthesiology

2:00 P.M.—Complications of Spinal and Caudal Anesthesia—*Harry Brown, M.D., Los Angeles.*

Paper No. 129. Introductory remarks and a short review of cases recently done. Extent of anesthesia necessary, advantages, indications, contraindications, technique, complications and treatment.

2:20 P.M.—Discussion by *E. C. Cartwright, M.D., Pasadena.*

2:30 P.M.—Caudal Anesthesia in Obstetrics—*A. J. Murrieta, Jr., M.D., Los Angeles*

Paper No. 130. A survey of approximately 4,000 cases, who received caudal anesthesia and analgesia, is reviewed. A comparison is made with other types of analgesia including "low spinal blocks." The advantages and disadvantages of caudal anesthesia are discussed. A discussion of possible medico-legal complications is presented. Complications of caudal anesthesia is again reviewed. Lantern slides.

2:50 P.M.—Discussion by *Hildegard Wilkinson, M.D., Glendale, and W. Benbow Thompson, M.D., Los Angeles.*

3:00 P.M.—Recess.

3:10 P.M.—An Evaluation of Infertility Factors—*Edmund W. Overstreet, M.D., San Francisco.*

Paper No. 131. A discussion, based on case material, of the relative importance and prognostic significance of the various factors which play an etiologic role in infertile marriages. Emphasis on the major physiological gynecologic factors with deprecation of the present tendency to ill-advised and haphazard endocrine therapy.

3:30 P.M.—Discussion by *Erle Henrickson, M.D., Los Angeles and Pendleton Tompkins, M.D., San Francisco.*

3:40 P.M.—Types of Sterilization—*A. N. Webb, M.D., Los Angeles.*

Paper No. 132. Comparison of end results of sterilization with Caesarean section from the experiences of specialists in various sections of United States. Consideration of menopause symptoms following Caesarean hysterectomy in young women.

4:00 P.M.—Discussion by *Donald Tollefson, M.D., Los Angeles, and W. C. Bradbury, M.D., Los Angeles.*

Saturday, May 3. 9:30 A.M. Conference Room 4

9:30 A.M.—Chairman's Address: Emotional Factors in Obstetrical Practice—*Philip A. Reynolds, M.D., Los Angeles.*

Paper No. 133. A review of the increasing interest in psychogenic factors in obstetrical and gynecological practice and a discussion of the obstetricians' need to inform themselves in this field.

9:50 A.M.—Discussion.

10:00 A.M.—Artificial Insemination—*John O. Haman, M.D., San Francisco.*

Paper No. 134. Briefly reviews the history and literature to date. Analyzes 63 cases, including both homologous and heterologous insemination with the successes, failures, and complications encountered with each type of insemination. The importance of special studies, especially the Rh blood types, basal body temperature, tubal patency, and endometrial biopsies is emphasized. The moral, ethical, and psychological grounds for this procedure, as well as the legal implications, and legitimacy of the offspring, are discussed.

10:20 A.M.—Discussion.

10:30 A.M.—Hemothorax in Relation to Ovarian Tumors—*Albert E. Long., M.D., San Francisco.*

Paper No. 135.

10:50 A.M.—Discussion.

11:00 A.M.—Business Meeting and Election of Officers.



ISABELLE H. PERRY
Chairman,
Pathology and Bacteriology



ALBERT G. BROWN
Secretary,
Pathology and Bacteriology

SECTION ON PATHOLOGY AND BACTERIOLOGY

Isabelle H. Perry, M.D., San Francisco, *Chairman*
Albert G. Brown, M.D., Glendale, *Secretary*
William H. Carnes, M.D., San Francisco, *Assistant Secretary*

Thursday, May 1. 9:30 A.M. Conference Room 2

9:30 A.M.—Rhinoscleroma—*Milton Levine, Ph.D., Robert E. Hoyt, Ph.D., O. B. Pratt, M.D., Los Angeles.*

Paper No. 136. Diagnosis of scleroma (rhinoscleroma) can be made in a number of ways:

PATHOLOGY: It is a granulomatous lesion primarily localized on the upper respiratory tract. The gross lesion most frequently described is the circumscribed nodular type which may appear as a single nodule or groups of nodules. Histologically, the ciliated epithelium is transformed into stratified pavement cells. In the deeper layers of the corium, the protoplasm becomes more dispersed and partially disappears; vacuoles and pyknotic nuclei are seen. Perivascular infiltration is found in which the characteristic Mikulicz cells stand out.

BACTERIOLOGY: The organism causing the disease may be isolated uniformly from the nose and throat of the patient suffering from scleroma. It is a gram-negative rod, forming mucoid colonies with the characteristic pattern of sugar fermentations.

SEROLOGY: The complement fixation test, using the above organism as an antigen, consistently is positive in individuals suffering from the disease.

9:50 A.M.—Discussion by *H. James Hara, M.D., Los Angeles.*

10:00 A.M.—Tumors of the Testis and Epididymis—*Henry D. Moon, M.D., San Francisco.*

Paper No. 137. Observations in approximately 100 cases of tumors of the testicle and epididymis are presented. The age incidence, location, hormonal function and classification of the tumors are discussed.

10:20 A.M.—Discussion by *Jesse L. Carr, M.D., San Francisco.*

10:30 A.M.—The Experimental Production of Gonadal Tumors in Rats—*Gerson R. Biskind, M.D., San Francisco, Morton S. Biskind, M.D., and Richard I. Pencharz, Ph.D., New York.*

Paper No. 138. An original technique in which the ovary or the testis is transplanted into the spleen of a castrate rat produces an experimental tumor derived from the transplanted organ. The nature of these tumors and the possible modes of production will be dscussed and illustrated by means of lantern slides.

10:50 A.M.—Discussion.

11:00 A.M.—Experimental Breast Cancer—*Michael B. Shimkin, M.D., San Francisco (by invitation).*

Paper No. 139. A report of experimental induction of mammary tumors in mice.

11:45 A.M.—Discussion by *H. A. Ball, M.D., San Diego.*

12:00 NOON—Chairman's Address: Nomenclature and Coding of Tumor Diagnoses—*Isabelle H. Perry, M.D., San Francisco.*

Paper No. 140. The types of registries in operation are reviewed. What does the pathologist get out of, and what does he contribute to a registry? A progress report is made on the work presented last year. What is the pathologist's part in the future development of tumor records?

12:20 P.M.—Discussion.

Friday, May 2. 9:30 A.M. Ball Room

Joint Meeting with Sections on General Surgery, General Practice, Radiology, and Anesthesiology

For Program, see Section on General Surgery

Saturday, May 3. 9:30 A.M. Conference Room 2

9:30 A.M.—Parathyroid Adenoma—*Justin R. Dorgeloh, M.D., San Francisco.*

Paper No. 141. Extirpation of two large parathyroid adenomas, possibly malignant, was followed by disappearance of the patient's hypercalcemia and bone lesions. Extracts of the tumors produced hypercalcemia in animals. Sections of parathyroid adenomas and giant cell tumors of bone are available, as also are smears of sternal marrow.

9:50 A.M.—Discussion by *E. M. Hall, M.D., Los Angeles.*

10:00 A.M.—Leukemia in the Newborn Infant—*Frederick Proescher, M.D., San Jose.*

Paper No. 142. Report of two cases of leukemia in infants, with a discussion of congenital leukemia. (With slides).

10:20 A.M.—Discussion by *A. M. Moody, M.D., San Francisco.*

10:30 A.M.—Pancreatic Calculi — *W. K. Bullock, M.D., and Hugh A. Edmondson, M.D., Los Angeles.*

Paper No. 143. Eleven instances of pancreatic calculi in 22,000 consecutive autopsies are reported. The pathogenesis and pathology are discussed. Their relationship to acute pancreatitis, chronic pancreatitis, calcification of the pancreas, and alcoholism is emphasized.

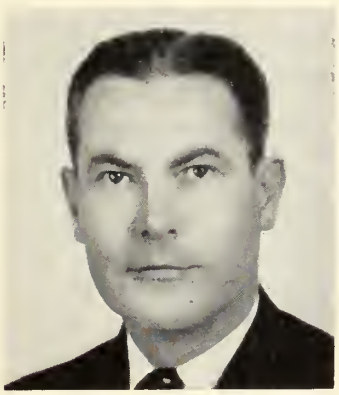
10:50 A.M.—Discussion by *A. G. Foord, M.D., Pasadena.*

11:00 A.M. Fibrosis Uteri — *Rosemary Shoemaker, M.D. and J. E. Kahler, M.D., Los Angeles.*

Paper No. 144. The results of histometric and clinical studies in a series of cases of "fibrosis uteri" are compared with similar studies in suitable controls in an attempt to more clearly define the pathologic and clinical criteria for the diagnosis of "fibrosis uteri."

11:45 A.M.—Discussion by *Lyman H. Robinson, M.D., Los Angeles.*

12:00 NOON—Business Meeting and Election of Officers.



E. H. CHRISTOPHERSON
Chairman, Pediatrics



C. I. MEAD
Secretary, Pediatrics

SECTION ON PEDIATRICS

E. H. Christopherson, M.D., San Diego, *Chairman*

C. I. Mead, M.D., Bakersfield, *Secretary*

Alice Potter, M.D., San Francisco, *Assistant Secretary*

Wednesday, April 30. 2:00 P.M. Ballroom

Joint Meeting with Sections on General Medicine and Public Health

For Program, see Section on General Medicine

Friday, May 2. 9:30 A.M. Conference Room 4

9:30 A.M.—Tetrologies, Their Diagnosis and Surgical Treatment—*Mary Olney, M.D., San Francisco.*

Paper No. 145. Presentation of clinical aspects and diagnostic procedure of a group of cyanotic congenital heart cases operated upon.

9:50 A.M.—Discussion.

10:00 A.M.—Epidemic Diarrhea of the Newborn—*Sidney Rosin, M.D., Los Angeles.*

Paper No. 146. Epidemiology, incidence in California, diagnosis, treatment, and prevention of diarrhea in the newborn will be discussed. Experience from an outbreak involving sixty infants is to be drawn upon.

10:20 A.M.—Discussion by *Phillip E. Rothman, M.D., Los Angeles.*

10:30 A.M.—A Review of Common Occular Problems in Children — *Martin T. Koke, M.D., San Diego.*

Paper No. 147. The records of one thousand nine hundred and forty-one children who were seen because of some ocular difficulty are reviewed to determine the relative frequency of the various eye disorders. Some of the cardinal factors in the diagnosis and management of the most common maladies are discus ed.

10:50 A.M.—Discussion.

11:00 A.M.—Business Meeting and Election of Officers.

11:15 A.M.—New Drugs Useful in Pediatric Practice —*Clinton H. Thienes, M.D., Los Angeles.*

Paper No. 148. This paper will be an interpretation of the pharmacology of a number of new

drugs. These will include benadryl, pyribenzamine, privine, 2, 3, dimerapto-propanol (BAL), Streptomycin, tyrocidin, sulfamethazine, and curare.

11:25 A.M.—Discussion.

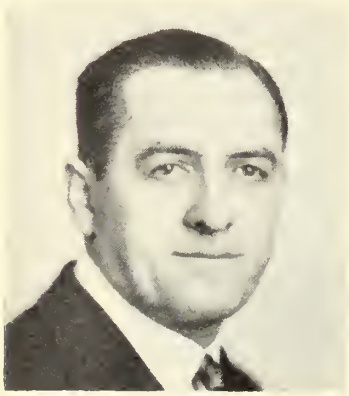
Saturday, May 3. 9:30 A.M. Music Room

Joint Meeting with Sections on Neuropsychiatry and Public Health

For Program, see Section on Neuropsychiatry

SECTION ON PUBLIC HEALTH

Dwight M. Bissell, M.D., San Jose, *Chairman*
Harold D. Chope, M.D., Stockton, *Vice-Chairman*
Malcolm H. Merrill, M.D., Berkeley, *Secretary*



DWIGHT H. BISSELL
Chairman, Public Health



MALCOLM H. MERRILL
Secretary, Public Health

Wednesday, April 30. 2:00 P.M. Ball Room

Joint Meeting with Sections on General Medicine and Pediatrics

For Program, see Section on General Medicine

Thursday, May 1. 9:30 A.M. Conference Room 5

9:30 A.M.—Chairman's Address: What Are the Basic Needs for Public Health?—*Dwight M. Bissell, M.D., San Jose.*

Paper No. 149. As communities become larger and more complex, organized society demands more of its public health service. As people travel more throughout the state, as well as the United States, there is a need for public health in other areas than the community in which one lives. The problem becomes one of determining how much public health can be utilized to good advantage by the people served. Another problem which is discussed is the need for sharing the financial responsibility for public health among various levels of government and among voluntary agencies. Adequate public health protection is discussed in this paper.

9:50 A.M.—The Relationship of the Health Officer and Practicing Physician to the Planning of Hospital and Health Center Facilities in California—*Philip K. Gilman, M.D., San Francisco.*

Paper No. 150. Relationship important as health of a community only as good as of its members. Should be increasing understanding between two groups of doctors. Availability and standards of facilities augmented by such cooperation and association. Medical profession and health officers duty to together develop high quality of medical care.

10:10 A.M.—Discussion by *Edw. Lee Russell, M.D., Santa Ana.*

10:20 A.M.—Community Health Education in Relation to the Private Physician—*Martin Mills, M.D., Richmond.*

Paper No. 151. The paper will include a discussion of various health education projects carried out in Richmond; the part the private physician has played in these projects; and the effect the programs have had on his practice. An outline will be given of a guide to health department activities and services to physicians, which has been prepared for the use of physicians and their secretaries.

10:40 A.M.—Discussion by *L. H. Frazer, M.D., Richmond.*

10:50 A.M.—Integration of the Services of the Physician, the Hospital, and the Health Department—*Edward S. Rogers, M.D., Berkeley.*

Paper No. 152. The services of the physician, the hospital, and the health department are closely interrelated in the prevention of disease and the provision of medical care in the community. How this inter-relationship has worked out in some situations will be described. Plans that have been presented for further integration will be considered.

11:10 A.M.—Discussion by *S. F. Farnsworth, M.D., Oakland.*

Friday, May 2. 9:30 A.M. Conference Room 5

Joint Meeting with C. M. A. Cancer Commission

9:30 A.M.—A Health Department's Role in the Cancer Program—*Lester Breslow, M.D., San Francisco.*

Paper No. 153. Health departments have until recently been concerned largely with vital statistics and communicable disease control. From this experience, several techniques have been developed—record systems, case finding, case holding, health education, and others. These are applicable to the control of cancer, now the second leading cause of death, and, hence, a concern of public health departments. (Discussion to follow next paper.)

9:50 A.M.—The Relation of the Private Physician to the Cancer Control Problem—*Lyell C. Kinney, M.D., San Diego.*

Paper No. 154. It is generally conceded that most early accessible cancer is curable, and that our high mortality rate in cancer is due in part to the period of delay between the incidence of the disease and effective treatment. The physician in private prac-

tice sees the large majority of cancer patients first. and he can be a determining factor in eliminating this delay if he is cancer conscious. One of the most effective methods of cancer control lies in the enlisting of intelligent, forceful cooperation of the private physician in this program.

10:10 A.M.—Discussion by *C. Hiram Weaver, M.D., Hollywood; E. T. Remmen, M.D., Los Angeles; David Wood, M.D., San Francisco, and A. W. Oughterson, M.D., New York.*

10:40 A.M.—Business Meeting and Election of Officers.

10:50 A.M.—The Epidemiological Aspects of Rheumatic Fever—*George C. Griffith, M.D., Los Angeles.*

Paper No. 155. It is believed that the epidemiology of Rheumatic Fever closely resembles that of the hemolytic streptococcus. Rheumatic Fever is now believed to be one of the collagenous diseases. The basic histopathologic lesion is that of an anaphylactic angiitis. The family, the home, the school, and the training camp are believed to be sources of contact with the beta hemolytic streptococcus. The prevention of Rheumatic Fever appears, therefore, to be in the field of the control of hemolytic streptococcal epidemics.

11:10 A.M.—Discussion by *A. M. Roberts, M.D., Los Angeles.*

11:20 A.M.—The Public Health Responsibility in the Rheumatic Fever Program—*L. S. Goerke, M.D., Los Angeles.*

Paper No. 156. The paper will cover a statistical review of the geographic source of Rheumatic Fever. source of reporting, case finding with a discussion of the need for a coordinated program and survey of facilities and services available compared to the desired facilities and services with emphasis on the problems encountered in working out details and policies.

11:40 A.M.—Discussion by *Roy O. Gilbert, M. D., Los Angeles.*

Saturday, May 3. 9:30 A.M. Music Room

Joint Meeting with Sections on Neuropsychiatry and Pediatrics

For Program, see Section on Neuropsychiatry



GORDON G. KING
Chairman, Radiology



DOUGLAS R. MacCOLL
Secretary, Radiology

SECTION ON RADIOLOGY

Gordon G. King, M.D., San Francisco, *Chairman*
Douglas R. MacColl, M.D., Los Angeles, *Secretary*

Wednesday, April 30. 2:00 P. M. Conference Room 2

Joint Meeting with Section on Obstetrics and Gynecology.

For Program, see Section on Obstetrics and Gynecology

Thursday, May 1. 9:30 A.M. Ball Room

Joint Meeting with Sections on General Medicine, General Surgery, and General Practice.

For Program, see Section on General Medicine.

Thursday, May 1. 2:00 P.M. Conference Room 5

2:00 P.M.—Cardiac Calcifications, Annular and Valvular—*Charles E. Grayson, M.D., Sacramento.*

Paper No. 157. Presentation will include the significance of such calcifications as an aid to the diagnosis of cardiac disease, as well as an aid in the study of cardiodynamics. The annular and valvular types are to be considered, including their differentiation from other calcific shadows and their localization fluoroscopically. The relative significance and age occurrence is to be discussed. Illustrative slides.

2:20 P.M.—Discussion.

2:30 P.M.—Inflammation—as Seen by the Radiologist—*Thomas A. Fullenlore, M.D., San Francisco.*

Paper No. 158. I. Introduction: (a) Reason for Paper. II. Inflammation: (a) Definition; (b) What Happens: (1) Irritant (2) Reaction (3) Experimental; (c) Summary of modern concept of inflammation. III. Effects of X-rays: (a) on bacteria; (b) susceptibility of cells to irradiation; (c) on normal tissues: (1) vascular response; (2) immunological response; (3) permeability change. IV. How x-rays effect inflammation in the light of III: (a) on bacteria; (b) destruction of Polymophonuclear leukocytes releasing Enzymes: (c) Changed permeability of cell walls; (d) destruction of young fibroblasts; (e) increased phagocytic ability of poly-

morphonuclear leukocytes; (f) increased opsonic index; (g) vaso dilitation. V. Conditions treated: (a) list of conditions, inserting tabulations when present; (b) explanation from experimental data as why results are not 100 per cent.

2:50 P.M.—Discussion.

3:00 P.M.—Radiological Management of Inflammatory Lesions—*Bertram V. A. Low-Beer, San Francisco.*

Paper No. 158-A. Treatment with ionizing radiation of inflammtory lesions has been well recognized by radiologists for many years. There is experimental evidence also available for the rationale of this treatment. Nevertheless, the efficacy of radiation therapy in inflammatory lesions has encountered considerable criticism and occasional doubt among the radiologists and practitioners. Analysis of the literature and personal experience indicates that the efficacy of radiation therapy depends greatly on clinical evaluation of the disease process upon which in turn the proper dosage depends. Radio-therapeutic management and clinical evaluation of the lesions before and after treatment will be discussed in this paper.

3:20 P.M.—Discussion.

3:30 P.M.—Roentgen Cardiac Kymography — *L. Henry Garland, M.D., San Francisco, and Sydney F. Thomas, M.D., Palo Alto.*

Paper No. 159. Experience with some three hundred cases is reviewed and evaluated in the light of comparative values of roentgen kymography and electrocardiography; especially, in coronary artery disease. The study is made in an attempt to demonstrate its usefulness in prognosis and in diagnosis of silent electrocardiographic myocardial infarct.

3:50 P.M.—Discussion.

4:00 P.M.—Business Meeting and Election of Officers.

4:10 P.M.—Business Meeting, Pacific Roentgen Society.

4:30 P.M.—Some Practical Aspects of Radio Isotopes in Medical Diagnosis and Treatment—*Earl Miller, M.D.,—San Francisco.*

Paper No. 160. There will be a description on which of the isotopes are useful, how they are used, for what they are used and a discussion about dosage and difficulties of determining dosages.

5:00 P.M.—Discussion.

Friday, May 2. 9:30 A.M. Ball Room

Joint meeting with Sections on General Surgery, General Practice, Pathology and Bacteriology, and Anesthesiology.

For Program, see Section on General Surgery

Friday, May 2. 2:00 P.M. Conference Room 8

Joint meeting with Sections on Neuropsychiatry and Industrial Medicine and Surgery.

For Program, see Section on Industrial Medicine and Surgery

SECTION ON UROLOGY

Franklin Farman, M.D., Los Angeles, *Chairman*
Lionel P. Player, M.D., San Francisco, *Secretary*



FRANKLIN FARMAN
Chairman, Urology



LIONEL P. PLAYER
Secretary, Urology

Wednesday, April 30. 2:00 P.M. Conference Room 4

2:00 P.M.—Treatment of Hunner Ulcer—*Tracy O. Powell, M.D., Los Angeles.*

Paper No. 161. A brief review of all the reported cases, a short analysis of modern views regarding the etiology, and a practical plan regarding the clinical management of the various types of cases.

2:20 P.M.—Discussion by *R. N. Barnes, M.D., Los Angeles.*

2:30 P.M.—Undescended Testicle — *Edward W. Beach, M.D., Sacramento.*

Paper No. 162. This problem is a perennial one. Proper solution depends much upon the general practitioner who is almost invariably consulted first by the sufferer or his parents. Confusion, uncertainty, and misinformation are still rampant because many of these ill-advised unfortunates delay treatment until the second, third, or even fourth decade when contingent developments force the issue. The author, leaning upon years of urological experience, plus a recent Navy background, seeks herein to review and clarify the subject and to set forth appropriate measures for better management of this all too common and much neglected entity.

2:50 P.M.—Discussion by *Thomas Gibson, M.D., San Francisco.*

3:00 P.M.—Critical Analysis of Treatment of Bladder Tumors—*R. B. Mullenix, M.D., and R. J. Prentiss, M.D., San Diego.*

Paper No. 163. This is a study of 150 private cases presenting carcinoma of the bladder treated by the authors between 1937 and 1946. Analysis and result of different methods of treatment is presented. A plea is made for more radical surgical treatment.

3:20 P.M.—Discussion by *Carl Rusche, M.D., Los Angeles.*

3:30 P.M.—Torsion of the Testicle; Differential Diagnosis and Treatment—*Lloyd Kindall, M.D., and Thomas Nickels, M.D., Oakland.*

Paper No. 164. Diagnosis and differential diagnosis of torsion of the spermatic cord.

3:50 P.M.—Discussion by *Clark Johnson, M.D., San Francisco.*

Thursday, May 1. 9:30 A.M. Conference Room 4

9:30 A.M.—Brief Review of Technique of Suprapublic Prostectomy—*George Reinle, M.D., and James MacDonald, M.D., Oakland.*

Paper No. 165. A brief historical review is mentioned of the more important changes in technique. An improved operative technique which is not radically new, but embodies several minor variations; the use of the oxycellulose as a hemostatic agent; closure of operative bladder incision, and urethral drainage with a Foley catheter. Case reports.

9:50 A.M.—Discussion by *Henry Weyrauch, M.D., San Francisco.*

10:00 A.M.—An Original Technique of Surgery of Deep Paravesical Diverticula in Bad Risks—*Paul A. Ferrier, M.D., Pasadena.*

Paper No. 166. Discussion open.

10:20 A.M.—Discussion.

10:30 A.M.—Scrotectomy for Scrotal Filariasis—*Perry A. Bonar, M.D., San Rafael.*

Paper No. 167. Duration, approximately ten years. Size was 24" x 18" approximately, weight 35 pounds. Discussion of technique, convalescence, final results, and pathology.

10:50 A.M.—Discussion by *Paul Michaels, M.D., Oakland.*

11:00 A.M.—The Cure of Cancer of the Prostate—*Frank Hinman, M.D., and Frank Hinman, Jr., M.D., San Francisco.*

Paper No. 168. The first surgical principle in the treatment of cancer is early diagnosis and radical removal. Thirty years' experience in the application of this principle to cancer of the prostate is presented.

11:20 A.M.—Discussion by *A. J. Scholl, M.D., Los Angeles.*

11:30 A.M.—Chairman's Address: Surgery of the Horseshoe Kidney—*Franklin Farman, M.D., Whittier.*

Paper No. 169. The increasing frequency of recognition of horseshoe (fused) kidney in urological and abdominal diagnosis makes consideration of modern advances in its surgical management a subject of increasing importance, not only to the urologist, but also to the roentgenologist, pediatrician, and internist as well. (Lantern slides).

11:50 A.M.—Discussion.

12:00 NOON—Business Meeting and Election of Officers.

Friday, May 2. 2:00 P.M. Conference Room 4

2:00 P.M.—Supernumerary Kidney with Aberrant Ureter—*J. Salem Rubin, M.D., Los Angeles.*

Paper No. 170. This is a report of a female, aged 24, who had incontinence since birth in addition to her normal urination.

2:20 P.M.—Discussion by *Carl Rusche, M.D., Los Angeles.*

2:30 P.M.—Aneurism of the Renal Artery—*C. P. Mathé, M.D., San Francisco.*

Paper No. 171. A report of a case in which resection was carried out without removing the kidney.

2:50 P.M.—Discussion by *Roger W. Barnes, M.D., Los Angeles.*

3:00 P.M.—Repair of Vesico-vaginal Fistula—Vaginal Route—*Elmer Belt, M. D., Los Angeles.*

Paper No. 172. New technical details, insuring success. Illustrations by moving pictures.

3:20 P.M.—Discussion.

3:30 P.M.—Tumors of the Ureter—*Nathan Hale, M.D., Sacramento.*

Paper No. 173. Ureteral tumors are uncommon. Those found occasionally, in elderly persons with prostatic hyperplasia, are confusing. Hematuria associated with ureteral tumors and prostatic obstruction complicates diagnosis.

3:50 P.M.—Discussion by *Donald Charnock, M.D., Los Angeles.*

Saturday, May 3. 9:30 A.M. Ball Room

Joint Meeting with Sections on General Practice and General Medicine

For Program, see Section on General Practice

C.M.A. CANCER COMMISSION PRE-CONVENTION CONFERENCES

BILTMORE HOTEL, LOS ANGELES

APRIL 29, 1947

The preconvention conferences sponsored by the Cancer Commission will be held at the Biltmore Hotel on April 29, on the day preceding the opening of the California Medical Association meeting.

PATHOLOGY. Conference Room 2

The preconvention conference on Histopathology will be held from 9 A.M. to 4 P.M. under the chairmanship of Dr. Hugh A. Edmondson. Twenty-five tumor diagnostic problems will be presented and discussed. Members who will attend this conference are requested to bring their own microscopes and to register now with Dr. Edmondson at 1200 North State Street, Los Angeles.

RADIOLOGY. Conference Room 8

The preconvention conference on Radiology will be held at 9:30 A.M. The chairman of this section is Dr. Moris Horwitz, 2009 Wilshire Boulevard, Los Angeles. The secretary is Dr. Wybren Hiemstra, California Lutheran Hospital, Los Angeles. The following program in Radiology has been prepared:

I. DIAGNOSTIC PROBLEMS

1. Gastric Lesion	J. F. Chapman, M.D., Pasadena
2. Bone Lesion	Roy W. Johnson, M.D., Los Angeles
3. Duodenal Lesion	Roy B. Weathered, M.D., Los Angeles
4. Pulmonary Lesion	Ray A. Carter, M.D., Los Angeles
5. Tumor	Gordon King, M.D., San Francisco
6. Bronchial Lesion (?)	Moris Horwitz, M.D., Los Angeles
7. Miscellaneous	
8. The Relation of the State Cancer Control Commission to the Radiologist	Lyell C. Kinney, M.D., San Diego

II. THERAPEUTIC PROBLEMS

1. Bone Tumor	Justin J. Stein, M.D., Los Angeles
2. Gastric Tumor	Kenneth S. Davis, M.D., Los Angeles
3. Lymphoblastoma with 12-year Survival	George S. Sharp, M.D., Los Angeles
4. Intra-oral Lesion	Ian MacDonald, M.D., Los Angeles
5. Tumor (?)	Sydney F. Thomas, M.D., Palo Alto
6. Bone Tumor	E. Siris, M.D., San Francisco
7. Miscellaneous	

Note: Members wishing to present a diagnostic or therapeutic case problem are asked to prepare the material so that it can be distributed amongst the members attending the conference. For example, with a diagnostic problem, positive prints of roentgenograms, sufficient for six separate illiminators are desirable. It is, of course, essential that all cases be pathologically verified.

The Cancer Commission Dinner will be held at 6 P.M., at the Biltmore Hotel, for members of the Cancer Committees of the County Medical Societies. Dr. A. W. Oughterson, Medical and Scientific Director of the American Cancer Society, will be the guest speaker.

INDEX TO SPEAKERS

Los Angeles, April 30 - May 3, 1947

Name and City	Page
— A —	
Adelstein, Leo J., *Los Angeles*	175
Alrd, Robert B., *San Francisco*	175
Allington, R. Raymond, *Los Angeles*	171
Althausen, Theodore L., *San Francisco*	164
— B —	
Barnett, Charles W., *San Francisco*	164, 171
Beach, Edward W., *Sacramento*	182
Belt, Elmer, *Los Angeles*	183
Biskind, Gerson R., *San Francisco*	178
Biskind, Morton S., *New York*	178
Bissell, Dwight M., *San Jose*	180
Black, Howard A., *Sacramento*	175
Blomquist, Olov A., *Los Angeles*	164
Boldrey, E. B., *San Francisco*	176
Bonar, Perry A., *San Rafael*	183
Borley, William E., *San Francisco*	172
Bower, Albert G., *Pasadena*	168
Brandenburg, Kenneth, *Long Beach*	172
Breslow, Lester, *San Francisco*	180
Brown, Harry, *Los Angeles*	177
Brownell, Durwin Hall, *San Diego*	172
Bryant, Ben, *Los Angeles*	172
Bullock, W. K., *Los Angeles*	179
Butler, Edmond Dana, *San Francisco*	166
Butler, O. W., *Los Angeles*	166
— C —	
Cadranel, James, *Los Angeles*	167
Carpenter, Gurth, *Beverly Hills*	165
Carter, Ray A., *Alhambra*	164
Clausen, Edwin G., *Oakland*	165
Cosby, Richard S., *Pasadena*	164
Crowe, Harold E., *Los Angeles*	174
— D —	
Davis, Edward W., *San Francisco*	175
Decker, Russell, *Pasadena*	172
Dennis, Robert, *Santa Rosa*	162
Dillon, John B., *Los Angeles*	166
Dorgeloh, Justin R., *San Francisco*	179
Doyle, John B., *Los Angeles*	173
Duemling, W. W., *San Diego*	170
— E —	
Eaton, Monroe D., *Berkeley*	163
Edmondson, Hugh A., *Los Angeles*	179
Emge, J. Ludwig, *San Francisco*	167
Epstein, Norman N., *San Francisco*	171
Evans, Edward R., *Pasadena*	164
Everingham, Sumner, *Oakland*	166
— F —	
Fairbanks, Grant, *Los Angeles*	172
Farman, Franklin, *Whittier*	183
Fasal, Paul, *San Francisco*	171
Ferrier, Paul A., *Pasadena*	183
Freeman, Norman, *San Francisco*	165
Fullenlove, Thomas A., *San Francisco*	181
— G —	
Garland, L. Henry, *San Francisco*	182
Gilman, Philip K., *San Francisco*	180
Godfrey, Merle F., *Glendale*	168
Goerke, L. S., *Los Angeles*	181
Goin, Lowell S., *Los Angeles*	166
Grant, William T., *Los Angeles*	176
Grayson, Charles E., *Sacramento*	181
Griffith, George C., *Los Angeles*	181
Griggs, Donald E., *Los Angeles*	164
— H —	
Haldeman, Keene O., *San Francisco*	174
Hale, Nathan, *Sacramento*	183
Hall, Colby, *Los Angeles*	172
Haman, John O., *San Francisco*	178
Hamilton, Paul, *San Marino*	163
Hammon, William McD., *San Francisco*	163
Henley, Bruce, *Oakland*	165
Hinman, Frank, *San Francisco*	183
Hinman, Frank, Jr., *San Francisco*	183
Hoffman, Arthur M., *Los Angeles*	164
Hoyt, Robert E., *Los Angeles*	178
— I —	
Ilfeld, Frederic W., *Los Angeles*	174
Ingels, Arne E., *San Francisco*	170
Irwin, James B., *San Diego*	174
— J —	
Jeffrey, Raymond L., *Los Angeles*	168
Joergenson, E. J., *Glendale*	166
Johns, Varner, *Los Angeles*	164
Jones, Hugh T., *Glendale*	165
Jones, John C., *Los Angeles*	164
Jones, O. W., Jr., *San Francisco*	174
— K —	
Kahler, J. E., *Los Angeles*	179
Keddie, Frances M., *San Francisco*	171
Kerr, William J., *San Francisco*	164
Kimball, T. S., *Glendale*	166
Kindall, Lloyd, *Oakland*	183
King, Earl B., *San Francisco*	166
Kinney, Lyell C., *San Diego*	180
Koke, Martin T., *San Diego*	179
Kolb, Lawrence, *Sacramento*	176
— L —	
Lachman, George S., *San Francisco*	173
Lack, Arthur R., *Los Angeles*	164
Leef, Edward, *Fresno*	177
Leffingwell, Forrest E., *San Marino*	169
LeVan, Paul, *Los Angeles*	171
Levine, Milton, *Los Angeles*	178
Levitt, Harry, *Los Angeles*	171
Long, Albert E., *San Francisco*	178
Low-Beer, B. V. A., *San Francisco*	182
Lucic, Hugo, *San Diego*	173

Name and City — *Page*

— M —

MacColl, Douglas R., *Los Angeles* ... 177
MacDonald, Ian, *Los Angeles* ... 166
MacDonald, James, *Oakland* ... 183
Martinson, Arthur J., *Los Angeles* ... 169
Mathe, C. P., *San Francisco* ... 183
Mathewson, Carleton, Jr., *San Francisco* ... 164
McCarthy, William D., *Oakland* ... 166
Meals, William G., *Los Angeles* ... 169
Meiklejohn, Gordon, *Berkeley* ... 163
Meininger, Willard M., *San Francisco* ... 171
Miller, Earl, *San Francisco* ... 176, 182
Mills, Martin, *Richmond* ... 180
Moon, Henry D., *San Francisco* ... 178
Moor, Fred B., *Los Angeles* ... 168
Morrow, Grant, *San Francisco* ... 170
Mullenix, R. B., *San Diego* ... 183
Murrieta, A. J., Jr., *Los Angeles* ... 177

— N —

Naffziger, Howard C., *San Francisco* ... 175
Neil, James M., *Oakland* ... 166
Nelson, Norman, *Los Angeles* ... 163
Neufeld, Alonzo J., *Los Angeles* ... 173
Newton, Albert H., *Yreka* ... 165
Nichols, J. Norton, *Los Angeles* ... 167
Nickel, Walter R., *San Diego* ... 170
Nickels, Thomas, *Oakland* ... 183
Noble, Charles A., *San Francisco* ... 168
Norris, Frank, *San Francisco* ... 177

— O —

Olney, Mary, *San Francisco* ... 179
Olsen, Clarence W., *Los Angeles* ... 175
Olsen, Sidney, *San Francisco* ... 168
Oughterson, A. W., *New York City* ... 162, 165
Overstreet, Edmund W., *San Francisco* ... 177

— P —

Pearson, Harold E., *Los Angeles* ... 163
Peluso, Joseph D., *Los Angeles* ... 174
Pencharz, Richard I., *New York City* ... 178
Perry, Isabelle H., *San Francisco* ... 178
Piness, George, *Los Angeles* ... 165
Powell, Tracy O., *Los Angeles* ... 182
Pratt, O. B., *Los Angeles* ... 178
Prentiss, R. J., *San Diego* ... 183
Priestley, James T., *Rochester, Minn.* ... 162
Proescher, Frederick, *San Jose* ... 179

— R —

Raney, Aidan A., *Los Angeles* ... 166
Raney, Rupert, *Los Angeles* ... 166
Read, J. Marion, *San Francisco* ... 171
Reed, Alfred C., *San Francisco* ... 164
Rees, Rees B., *San Francisco* ... 170
Reimann, Hobart, *Philadelphia* ... 162, 163, 164

Name and City — *Page*

Reinle, George G., *Oakland* ... 183
Reynolds, Eric, *Oakland* ... 166
Reynolds, Philip A., *Los Angeles* ... 178
Rogers, Edward S., *Berkeley* ... 180
Rosanoff, William R., *Los Angeles* ... 175
Rosenblum, Harold, *San Francisco* ... 164
Rosin, Sidney, *Los Angeles* ... 179
Royston, Eric A., *Los Angeles* ... 167
Rubin, J. Salem, *Los Angeles* ... 183
Russell, William O., *Santa Barbara* ... 162

— S —

Scarborough, Robert, *San Francisco* ... 167
Scheinkoff, Jack A., *Beverly Hills* ... 164
Schumann, W. R., *Los Angeles* ... 177
Schwartz, Walter F., *Pasadena* ... 170
Sellery, C. Morley, *Los Angeles* ... 176
Selzer, Arthur, *San Francisco* ... 164
Shimkin, Michael B., *San Francisco* ... 178
Shoemaker, Rosemary, *Los Angeles* ... 179
Smart, Reginald H., *Los Angeles* ... 165
Snell, Albert, *Rochester, Minn.* ... 162, 165
Soto-Hall, Ralph, *San Francisco* ... 174
Starr, Paul, *Pasadena* ... 165
Stephens, H. Brodie, *San Francisco* ... 165
Sternberg, Thomas H., *Los Angeles* ... 171
Stiles, John A., *San Francisco* ... 169
Stork, Victor E., *Los Angeles* ... 176

— T —

Taylor, L. M., *San Bernardino* ... 169
Thienes, Clinton H., *Los Angeles* ... 179
Thomas, Sydney F., *Palo Alto* ... 182
Thompson, George N., *Los Angeles* ... 175
Thompson, William Paul, *Los Angeles* ... 164
Thorner, M. C., *Los Angeles* ... 164
Thygeson, Phillips, *San Jose* ... 173
Tietz, Esther Bogen, *Los Angeles* ... 175
Timme, Arthur R., *Los Angeles* ... 175
Torrey, Frances, *San Francisco* ... 170
Tragerman, John, *Los Angeles* ... 162

— V —

Vickers, J. E., *Los Angeles* ... 164

— W —

Waine, Hans, *San Francisco* ... 168
Webb, A. N., *Los Angeles* ... 177
Wilson, John C., *Los Angeles* ... 168
Wyatt, Bernard L., *Los Angeles* ... 168
Wycoff, Charles C., *San Francisco* ... 169

— Y —

Yuskis, Anton, *San Diego* ... 164

— Z —

Zeligs, Meyer A., *San Francisco* ... 164
Zimmerman, Kent A., *San Francisco* ... 176



MRS. HARRY E. HENDERSON
C.M.A. Auxiliary President

The President's Message

It is the hope of the Women's Auxiliary to the California Medical Association that all of the doctors will bring with them to the Convention their wives, mothers, sisters, or adult daughters, and that these ladies may take part in our Annual Convention, which will be held in room 3333 at the Biltmore, April 30 to May 2. All of them will be welcome, as delegates, members, or guests, to share in the General Sessions and in the entertainment.

There will be two morning General Sessions, which will be interesting and brief, and for entertainment there will be a luncheon with a fine speaker, a delightful tea in honor of Mrs. S. J. McClendon, and other interesting things to do.

Again we can thank the ladies of the Los Angeles Auxiliary for their hospitality, and for attending with such great care to all the details of Convention arrangements. To Mrs. Lawrence Gundrum, Convention Chairman, and Mrs. Arthur H. Hurd, Local Chairman, and to the many members of their committees, goes our heartfelt gratitude.

MRS. H. E. HENDERSON, *President.*



MRS. R. W. DAHLGREN
C.M.A. Auxiliary Recording Secretary

Room	WEDNESDAY April 30		THURSDAY May 1		FRIDAY May 2		SATURDAY May 3	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
Ballroom	General Meeting	General Medicine Public Health Pediatrics	General Medicine Surgery General Practice Radiology	General Medicine General Practice	Surgery General Practice Radiology Pathology Anesthesiology	General Meeting and Clinical Pathological Conference	General Practice with Urology and Medicine	
Music Room			Neuropsychiatry	Surgery Indust. Medicine Neuropsychiatry			Public Health Neuropsychiatry Pediatrics	
Conference Room Two		Obstetrics Radiology	Pathology	Eye, Ear, Nose and Throat	General Medicine	Eye, Ear, Nose and Throat	Pathology	
Conference Room Four		Urology	Urology	Obstetrics Anesthesiology	Pediatrics	Urology	Obstetrics	
Conference Room Five		Anesthesiology	Public Health	Radiology	Public Health and Cancer Commission			
Conference Room Six				Anesthesiology				
Conference Room Eight		General Practice			Neuropsychiatry	Indust. Medicine Neuropsychiatry Radiology	Indust. Medicine	
Conference Room Nine			Dermatology	Dermatology	Dermatology			

HOUSE OF DELEGATES MEETS WEDNESDAY AND FRIDAY AT 4 P.M. IN THE MUSIC ROOM.
COUNCIL OF THE C.M.A. MEETS DAILY AT 7:30 A.M. IN CONFERENCE ROOM NUMBER 6.

PRE-CONVENTION REPORTS

Officers • Councilors • Committees • County Societies

REPORTS OF GENERAL OFFICERS

REPORT OF THE PRESIDENT

To the House of Delegates:

The past year has been an active one in California Medicine. Gratifying results have been secured in the campaign conducted by the California Medical Association, for promotion of the "Voluntary Pre-Paid Practice of Medicine." At this writing the continued threat of compulsory insurance is still present. Through the wholehearted support of our membership and an enthusiastic and continued public relations program, the people of California are rapidly becoming better acquainted with the merits of the private practice of medicine.

It has been the pleasure and privilege of your President to visit many of the component County Societies during the year. It has been extremely gratifying to see the excellent cooperation and support given by them in all the organizational affairs of the association.

Respectfully submitted,

S. J. McClendon, *President.*

REPORT OF THE PRESIDENT-ELECT

To the President and the House of Delegates:

During the past year, the President-Elect has attended all except one of the regular and special meetings of the Council and all meetings of the Executive Committee. He has participated in the deliberations and actions of the Council and the Executive Committee.

Respectfully submitted.

John W. Cline. *President-Elect.*

REPORT OF THE SPEAKER OF THE HOUSE OF DELEGATES

To the President and the House of Delegates:

Your Speaker, during the past year, has endeavored to fulfill his interim duties as a member of the Council and Executive Committee. In this capacity I have seen a conscientious, diligent and efficient attempt made by all members of the Council to accomplish the expressed orders of the House of Delegates. Foremost in the minds of the Council has been the desire to represent the will of the members of the California Medical Association. In a year of readjustment, of economic unrest, of political mancuvering by enemies of the medical profession, the decisions made by your Council and Executive Committee have been emergent at times and subject to correction or addition as time has shown necessity. It is for that reason and because every officer wishes to know the desires of the membership that this House of Delegates should familiarize itself with all reports of officers and the Council. Each Delegate should come to this session informed and alert to the needs of our profession. Each should recognize that he has a duty as a Delegate that should not be borne lightly. On every Delegates' shoulders may rest the decision of the whole profession.

As your Speaker, I again call your attention to the need for promptness in attendance at the sessions, your duty to appear before Reference Committees to discuss resolutions concerning which you may have knowledge, and sincerity of purpose to accomplish those things which will redound to the benefit of our patients and the prestige of our profession.

Respectfully submitted.

E. Vincent Askey, *Speaker.*

REPORT OF THE VICE-SPEAKER

To the President and the House of Delegates:

"Once more unto the breach, dear friends, once more.
Or close the wall up with our English dead!
In peace there's nothing so becomes a man
As modest stillness and humility;
But when the blast of war blows in our ears,
Then imitate the action of the tiger:
Stiffen the sinews, summon up the blood."

King Henry V—Shakespeare.

The Vice-Speaker has attended all Council meetings during the past year and has endeavored to fulfill the several special assignments given him.

As the current battle lines of the perennial attack on scientific medicine become more clearly discernible, it is heartening to note that the California Medical Association has enhanced its position materially as compared with the situation two years ago. We have an excellent public relations program, thoroughly integrated and most capably directed. Our state-wide plan for the pre-payment of the costs of illness is giving satisfaction, meeting with popular acceptance and expanding in a praiseworthy manner.

Our contention that medical economics is just one phase of the general problem of economics and that the adoption of panaceas and paternalism in medicine would inevitably result in the extension of such fallacies to the entire business community, has found ready approval and elicited much genuine support. We have demonstrated our awareness of the problems involved in medical care and our eagerness to seek and achieve real solutions. We have made many friends where friendship really counts. Even some of our enemies have begun to doubt that we are quite as bad as they formerly believed.

But—we must not for one moment let down our guard.

Respectfully submitted.

L. A. Alesen, *Vice-Speaker.*

REPORT OF THE CHAIRMAN OF THE COUNCIL

To the President and the House of Delegates:

During the year I have served as Chairman of the Council I was present at all the meetings of the Council, and likewise served regularly on the Executive Committee and was present at the meetings thereof.

It is becoming increasingly necessary for the Councilors to put in more time in a business of the size of that we represent, which they have willingly done during the year.

It is my desire to thank all the members of the Council, as well as the various departmental executives in the California State Medical Association, for their cooperation during the past twelve months.

Respectfully submitted.

Edwin L. Bruck, *Chairman of the Council.*

Report of the Council

To the President and the House of Delegates:

The Council submits its report for the period from the close of the 1946 Annual Session to mid-February, 1947.

1. *Meetings.*

The Council to date has held four meetings, including an organization meeting of May 10, 1946, and regular meetings on September 8, 1946, November 10, 1946, and January 12, 1947. Meetings are scheduled for March 15 and 16, 1947, and for April 29, 1947, as well as the daily meetings during the 1947 Annual Session.

In addition to holding its own meetings the Council has reviewed the actions of the Executive Committee at its meetings of September 8 and October 16, 1946, and January 22 and February 5, 1947.

Council minutes have been printed regularly in the official journal and it is hoped that Association members have taken the opportunity to keep abreast of the deliberations of the Council. It is noteworthy that the Association's affairs have grown to the point where two-day Council meetings now appear necessary. In addition to such meetings, the Council is prepared to consider the actions taken by the Executive Committee, which is prepared to meet every two weeks or at such intervals as appear advisable.

2. *Public Policy and Legislation.*

The Council has been pleased to approve the activities of the Committee on Public Policy and Legislation. This committee has performed nobly in the interests of all Association members and merits the highest commendation for its activities and accomplishments. Legislative prospects for 1947 present numerous problems, particularly with Governor Warren's compulsory health insurance bill again up for consideration. In addition to this proposal, there are numerous bills affecting the public health and the practice of medicine in which the Association is vitally interested and on which we can count upon the effective services of this committee. The Council has consistently approved the actions of the committee and from time to time has appropriated the funds necessary to carry on the committee's work.

3. *Industrial Accident Commission.*

Late in 1946 the Industrial Accident Commission of the State of California put into effect a new and complete schedule of fees applicable to industrial accident cases. The Council is pleased to note the institution of this schedule and to commend the special committee of the Association which worked long and tirelessly in bringing about its adoption. The Council recognizes that the present schedule of fees may not be entirely adequate or equitable in all cases but calls attention to the fact that the adoption of this schedule represents a major victory in that the Industrial Accident Commission has taken jurisdiction in this case and has actually approved a more complete and up-to-date fee schedule. It is believed that inequities in the present schedule may be adjusted through later negotiations.

4. *California Physicians' Service.*

The Council has followed with the greatest interest the progress of California Physicians' Service. Representatives of C.P.S. have appeared as invited guests at all Council meetings and have reported regularly to the Council on all actual and proposed changes in C.P.S. policy and operation. In turn, the Council has been represented at C.P.S. Trustees' meetings, so that a direct liaison has been maintained between the two organizations.

It is the belief of the Council that C.P.S. has been operated both in the public and professional interest in the past year and that it is due the commendation of the medical profession for its rapid and effective development in the face of numerous obstacles. Among these may be mentioned the lack of adequate office space, the need of more trained personnel, the physical problems presented in a membership growth of 140 per cent in one year and the necessary delays occasioned by joint operations with other organizations. Despite all such handicaps, C.P.S. was able in 1946 to increase its membership from 176,000 to more than 432,000 and to bring its professional membership up to more than 7,600 physicians.

The Council has noted with interest that the Trustees of C.P.S. have given close consideration to the recommendations in the "Chandler Committee" report which was adopted by the 1946 House of Delegates. The Council has seen the introduction into C.P.S. procedures and policies the majority of these recommendations and believes that those recommendations which have not yet been put into effect are under study and will be instituted at the earliest possible date.

The C.P.S. program for treatment of veterans' service-connected ailments represents one of the most valuable services which C.P.S. has been able to perform to date. Through this program the medical care of more than 1,300,000 veterans has been retained by the home-town doctors rather than being handled in veterans' hospitals which are often inconvenient for the patient and his family. The Council soundly commends C.P.S. for this program, which it believes is being soundly operated for the benefit of the patient and the physician alike.

5. *Cancer Commission.*

The Council has been kept in close touch with the program of the Cancer Commission, which the Council wishes to congratulate upon its progressive program. The Cancer Commission has cooperated most closely with the California Division of the American Cancer Society, has employed a medical director to assist in establishing a statewide effective cancer detection and treatment program, has aided in the employment of a full-time executive secretary for the California Division of the American Cancer Society, has taken the initial steps in a program of educating California physicians in early cancer detection and has laid the groundwork for issuance of an up-to-date cancer manual for the use of all California physicians. The Cancer Commission has at all times conferred with the Council and the officers of the C.M.A. in its programs and in the opinion of the Council this commission is embarked upon a public and professional educational course which is bound to show increasingly tangible results in cancer detection and treatment.

6. *State Board of Health.*

The Council and Executive Committee have been pleased to confer from time to time with representatives of the State Board of Health and the State Department of Public Health. Early in 1947 conferences were held in regard to legislative proposals adopted by the State Board of Health and scheduled for introduction into the 1947 session of the Legislature. The Council saw fit to withhold approval from some of these proposals and to confer at greater length with representatives of the State Department of Public Health.

It is the belief of the Council that the State Board of Health and the State Department of Public Health are established by law to oversee the broader aspects of public health in the fields of mass preventive medicine (such as inoculation), sanitation, water supplies, etc. It is likewise the belief of the Council that the State Department of Public Health is not established for the purpose of carrying on the practice of medicine or entering into the clinical

aspects of medical practice. The Council decries any tendency toward such practices and reiterates its stand that the practice of medicine belongs in the hands of the private practitioners. If public health authorities indicate a desire to cross over this dividing line, it is the belief of the Council that the Association should make every effort to see that a strict division of authority and function should be maintained.

7. *Board of Nurse Examiners.*

The attention of the Council was called early this year to a ruling made by the State Board of Nurse Examiners affecting the hours of study and floor duty for nurse students. Representatives of the Association have protested this ruling and the Council has been pleased to join with others in attempting to eliminate from the administrative orders of the Board of Nurse Examiners any ruling which tends to specify maximum hours of study in schools of nursing. It is the belief of the Council that the function of the Board of Nurse Examiners, in common with other state boards operating in the professional fields, is to establish minimum standards of professional attainment and not maximum hours of study. Such boards should concern themselves with professional topics only and should leave to other departments of the state government the establishment and maintenance of hours of employment or study. Otherwise there is bound to result an overlapping of authority which will be, at one time, confusing to the professions and injurious to the public health. The Council urges that the Association go on record in this vein.

8. *University of California at Los Angeles.*

The Council has watched with extreme interest the preliminary steps in the establishment of a new medical school at the University of California at Los Angeles. On behalf of the Association the Council offered its offices to the Regents of the University of California in the quest for a Dean for this school and it now believes that the Association should offer every aid and encouragement to this new school to permit it to become one of the leading medical schools in the country.

9. *Palo Alto Clinic.*

Since before the 1946 Annual Session the Council has considered the terms of a contract between the Palo Alto Clinic and Stanford University for the provision of medical services to Stanford students. In response to various suggestions made by the Council the two parties to this contract have agreed to several changes in the contract terms. At the present time there still remains the question as to whether or not the present contract, as it would be amended by proposals already agreed to by the contracting parties, would satisfy, in the opinion of the Council, the requirements of the Principles of Medical Ethics regarding contract practice.

Without entering into a discussion of the pros and cons of this question, the Council wishes to place in the record the fact that contracts of this nature are not confined to specific localities in their implications; there are numerous schools throughout the state, any one of which might wish to enter into a similar contract with a group of local physicians, and it appears to the Council that the basic considerations of any such proposed contract should be along lines which would be equally applicable to any locality. It also appears to the Council that many problems which might arise in regard to such contracts are of a nature that can and should be handled on a local basis. The Council does not wish to dodge any responsibility in the determination of such problems but it wishes to call attention to the fact that where such matters can be worked out on a local basis, the result is likely to be more satisfactory to those immediately concerned than where an outside body, particularly one of statewide proportions, enters into the discussion in the role of an arbiter or judge. It is believed that the ultimate results, where such problems are settled locally, will be more in keeping with the customs and likes of the immediate locality and those who live there.

10. *Addendum.*

The Council will present to the House of Delegates any further items which come under discussion prior to the 1947 Annual Session, together with such recommendations as are decided upon by the Council.

Respectfully submitted.

Edwin L. Bruck. *Chairman.*

REPORT OF THE PRESIDENT OF THE TRUSTEES OF THE C.M.A.

To the House of Delegates:

The Trustees of the C.M.A. is an incorporated body established for the purpose of serving as a holding company for assets accumulated by the Association. The members of the Trustees of the C.M.A. are the members of the Association Council at that time, so that the transactions of the Trustees are identical with the actions of the Council. Under the report of the Treasurer, published on another page, will be found the financial report of the Trustees of the C.M.A., this constituting the accounting by the Trustees for funds held by the corporation and representing the only report which the Trustees make as custodians of these funds.

Respectfully submitted.

Sam J. McClendon, M.D., *President.*

REPORT OF THE SECRETARY

To the President and the House of Delegates:

At the end of the 1946 Annual Session, Doctor George H. Kress, who had served the Association so ably for many years, retired from office. The Council, after considerable deliberation, embarked upon a new policy and decided to appoint a part-time Secretary. The undersigned accepted the appointment with the understanding that it would be on this basis, without salary, and that many of the routine duties formerly pertaining to the office would be encompassed by the Executive Secretary. These duties Mr. Hunton has dispatched with more than usual ability, and in complete cooperation with the Honorary or "Constitutional" Secretary. In view of this fact, many of the items previously reported upon by the Association Secretary will this year be found in the Report of the Executive Secretary.

Your Secretary has attended all of the meetings of the Council and of the Executive Committee, in addition to several other meetings such as those of the Legislative Committee, the Cancer Commission and other bodies appointed by the House. He has attempted to carry out the policies laid down by the Council and to be of assistance in the solution of miscellaneous problems arising in such duties. In accordance with the by-laws, he has also served as Chairman of the Committee on Scientific Work. This involves the preparation of the scientific program for the 1947 Annual Session, and has occupied the major portion of his time in his official capacity.

Together with the Editor, your Secretary spent a most instructive two-hour period inspecting the main office of California Physicians' Service, and reviewing the complicated procedures involved in this vastly important undertaking. He wishes that all members of the Association would take the short time required for such a visit, and

avail themselves of personal contact with the multiple problems of Doctor Larsen and Mr. Bowman.

Your Secretary was both surprised and honored at his appointment following the last Annual Session. He realizes that the obligations of the office in an Association as large as ours are indeed considerable. He accepted the position with the understanding that it would be one of brief duration, designed largely to comply with the letter of our Constitution during the year or years that the amendment pertaining to the medical requirement of our secretaryship is under review by the House of Delegates. After a year's experience, it is his humble belief that the position of Honorary or Constitutional Secretary has potential value to the Association (as has been found by other state medical societies), if only to lend the "medical" viewpoint to certain problems as they arise, and to keep still another member closely cognizant with the disbursement of the large expenditures now authorized by the House of Delegates each year.

Your Secretary wishes to thank the officers of the Association and the staff of the Association's main office for their untiring cooperation and assistance. To Mr. Hunton and Miss Griffin in particular, he wishes to express his gratitude.

Respectfully submitted.

L. Henry Garland, *Secretary*

REPORT OF THE TREASURER

To the President and the House of Delegates:

The actual duties of the Treasurer of the Association are handled in the Association office by the office staff. Your Treasurer, therefore, submits as his report for 1946 the independently audited reports prepared by Hood & Strong, Certified Public Accountants. These reports cover operations of the California Medical Association and the Trustees of the California Medical Association (a corporation) for the period of six months ended June 30, 1946. They also show a balance sheet for both the association and the corporation as of June 30, 1946, and a comparative consolidated balance sheet of both organizations for the same date.

The Trustees of the California Medical Association is maintained as a corporation for the purpose of holding assets which may be accumulated by the California Medical Association. In operation it serves as a safekeeping fund for those assets not required in the day-to-day operations of the Association. Members should consider the combined consolidated balance sheet of both organizations in evaluating the financial position of the Association.

Respectfully submitted.

L. Henry Garland, *Treasurer.*

CALIFORNIA MEDICAL ASSOCIATION

STATEMENT OF INCOME AND EXPENDITURE FOR THE SIX MONTHS ENDED JUNE 30, 1946

INCOME

Dues and General:	
Membership Dues—less portion allocated to "Journal" subscriptions	$516,718.50
Exhibits at annual meeting	11,077.50
California Medical Society—services	250.00
Interest earned	3.50
Other	15.00
	$528,064.50
Official Journal—"California and Western Medicine":	
Advertising	$ 32,591.51
Members' subscriptions—allocated from dues	15,976.50
Cash subscriptions	676.26
	$ 49,244.27
Total Income	$577,308.77

EXPENDITURE

Administrative	$ 48,499.05
Scientific, educational, and public relations	120,461.81
Official Journal—"California and Western Medicine"	29,917.82
Total Expenditure	$198,878.68
Excess of Income over Expenditure	$378,430.09

EXPENDITURES

FOR THE PERIOD JANUARY 1 TO JUNE 30, 1946

Administrative:	
Salary—Association secretary and treasurer	$ 1,725.00
Salary—executive secretary	6,000.00
Salaries—clerical	4,631.25
Travel expense:	
Secretary	539.06
Officers	174.69
Council	1,733.62
Executive committee	47.61
A.M.A. delegates	427.39
Taxes—payroll	271.64
Annual meeting expense	12,245.64
Legal expense:	
Retainer fee	3,000.00
Other legal expense	520.58
Rent	2,487.10
Office supplies and expense	1,208.14
Postage	367.86
Telephone and telegraph	523.45
Council and executive committee	676.08
Contributions to the United Public Health League	10,017.61
Miscellaneous	1,902.33
	$ 48,499.05
Scientific, Educational, and Public Relations:	
Contributions to medical libraries	$ 2,661.00
Public policy and legislation expense	33,826.05
Department of public relations	73,964.00
Department of public relations—C.P.S. promotion	858.79
Physicians' Benevolent Committee	5,325.50
Other committee activities	3,826.47
	$120,461.81
Official Journal—"California and Western Medicine":	
Salary—editor	$ 2,666.65
Printing	17,558.18
Advertising commission	6,830.34
Wrapping and mailing	1,184.76
Illustrations	285.48
Supplies expense and office postage	1,123.14
Discounts and collection expense	168.28
Reprints	100.99
	$ 29,917.82
Total Expenditure	$198,878.68

CALIFORNIA MEDICAL ASSOCIATION

Balance Sheet As of June 30, 1946

ASSETS

Cash		$390,982.33	
In banks	$390,951.83		
Commercial accounts	$390,345.21		
Savings accounts	606.62		
On hand	3.00		
Petty cash fund	27.50		
Accounts Receivable.		6,114.67	
"Journal" advertisers—total	6,030.24		
Less reserve for doubtful accounts	500.00		
	5,530.24		
Miscellaneous	584.43		
Trust Funds		4,441.45	
Morris Herzstein Bequest	3,130.15		
Benevolence	1,311.30		
Furniture and Fixtures—Nominal value		1.00	
Deferred Charges		758.64	
Rent paid in advance	499.10		
Postage on hand	259.54		
Deposit—United Air Lines		425.00	402,723.09

LIABILITIES

Accounts Payable....		14,535.59	
"Journal" production —accrued expense.	3,873.98		
Accrued expense—other	10,255.62		
Collector of Internal Revenue—withholding tax	317.80		
Miscellaneous	88.19		
Trust Accounts.....		4,441.45	
Unexpended balance of income received under Morris Herzstein Bequest.....	3,130.15		
Benevolence Fund...	1,311.30		18,977.04
Surplus			383,746.05
Representing the amount by which the total assets exceed the liabilities as of June 30, 1946.			
Balance, January 1, 1946		5,315.96	
Add		378,430.09	
Excess of income over expenditure for six months ended June 30, 1946.....	378,430.09		

TRUSTEES OF THE
CALIFORNIA MEDICAL ASSOCIATION
(A CORPORATION)
San Francisco, California

STATEMENT OF INCOME AND EXPENDITURE
FOR THE SIX MONTHS' PERIOD ENDING
JUNE 30, 1946

INCOME

Interest on bonds..$	1,687.28
Interest on savings accounts.....	18.54
$	1,705.82

EXPENDITURE

Premium on bonds purchased.....$	1,250.00
Audit fee	140.00
Miscellaneous	71.00
$	1,461.00
Excess of Income over Expenditure.....$	244.82

TRUSTEES OF THE
CALIFORNIA MEDICAL ASSOCIATION
(A CORPORATION)
San Francisco, California
Balance Sheet, June 30, 1946

ASSETS

Cash		$ 1,512.04	
Bank of America, N. T. & S. A.....	$ 1,302.12		
Commercial account$782.17			
Savings account 519.95			
Wells Fargo Bank—savings account...	1,626.31		
American Turst Company—savings account	1,583.61		
Investments		146,878.52	
U. S. Government securities	144,000.00		
Accrued interest.....	2,878.52		
Endowment Fund....		262.03	
Bank of America, N. T. & S. A.—savings account	262.03		
Benevolence Fund....		13,477.25	
Crocker First National Bank—savings account.....	13,477.25		$165,129.84

LIABILITIES AND SURPLUS

Members' Contribution to Endowment Fund		$ 262.03	
Benevolence Fund....		13,477.25	13,739.28
Surplus			151,390.56
Representing the amount by which the total assets exceed the liabilities as of June 30, 1946.			
Contributed surplus received from California Medical Association		75,000.00	
Earned surplus.....		76,390.56	
Balance, January 1, 1946	76,145.74		
Net income for year 1946	244.82		

CALIFORNIA MEDICAL ASSOCIATION AND
TRUSTEES OF CALIFORNIA MEDICAL ASSOCIATION (A CORPORATION)
COMBINED COMPARATIVE BALANCE SHEET
As of June 30, 1946

ASSETS	CALIFORNIA MEDICAL ASSOCIATION	TRUSTEES OF THE CALIFORNIA MEDICAL ASSOCIATION	COMBINED JUNE 30, 1946	COMBINED DECEMBER 31, 1945	INCREASE (DECREASE)
Cash$	390,982.33	$ 4,512.04	$395,494.37	$ 58,433.70	$337,060.67
Marketable securities		146,878.52	146,878.52	125,004.36	21,874.16
Accounts receivable	6,114.67		6,114.67	3,480.23	2,634.44
Endowment fund		262.03	262.03	260.73	1.30
Benevolence fund	1,311.30	13,477.25	14,788.55	16,145.75	(1,357.20)
Trust fund	3,130.15		3,130.15	3,114.58	15.57
Furniture, equipment, etc.	1.00		1.00	1.00	
Deferred charges	758.64		758.64	591.66	166.98
Deposit—United Air Lines	425.00		425.00	425.00	
	$402,723.09	$165,129.84	$567,852.93	$207,457.01	$360,395.92
LIABILITIES—RESERVES AND SURPLUS					
Accounts payable$	14,535.59		$ 14,535.59	$ 4,174.25	$ 10,361.34
Members' contributions to endowment fund		$ 262.03	262.03	260.73	1.30
Benevolence fund	1,311.30	13,477.25	14,788.55	16,145.75	(1,357.20)
Trust account	3,130.15		3,130.15	3,114.58	15.57
Deferred income				27,300.00	(27,300.00)
Surplus	383,746.05	151,390.56	535,136.61	156,461.70	378,674.91
	$402,723.09	$165,129.84	$567,852.93	$207,457.01	$360,395.92

REPORT OF THE EXECUTIVE SECRETARY

To the President and the House of Delegates:

Your Executive Secretary, in presenting his report for the calendar year 1946, submits the following, segregated in the various divisions of his duties:

1. *General.* The C.M.A. office has been maintained for the proper functioning of Association activities and at the highest possible level of efficiency consistent with this purpose. The office staff consists of four young ladies, three of whom have been in the office for five years or more, and two men who have been added within the past year. Mr. Robert F. Edwards has assumed the duties of Assistant to the Editor and Mr. William P. Wheeler is serving as Assistant Executive Secretary. The entire staff has handled all duties in a businesslike and efficient manner and the thanks of the Executive Secretary, as well as the Association as a whole, are due to all personnel.

During 1946 it was possible to renew or modernize the office equipment, particularly the typewriters and the Mimeograph machine. Other new equipment was purchased as a means of making the office efficient, and one additional room was secured. Three small rooms were thrown into one large room by the removal of partitions, and the resultant space functions in a much more satisfactory and efficient manner than heretofore.

2. *Meetings.* The Executive Secretary has attended all meetings of the Council and the Executive Committee, as well as numerous committee meetings. He has attended the two meetings of the A.M.A. House of Delegates and the A.M.A. Annual secretaries' conference. He has made two trips to Washington and New York in behalf of the Association and has traveled into many parts of California at the request of the county medical societies and the members of the Council.

3. *Financial.* The Association during 1946 adopted a new fiscal year, starting July 1 of each year. This change from the former calendar year fiscal basis was suggested as a means of permitting the adoption of an annual budget at the annual meeting for initiation within a matter of sixty days, rather than eight months later. It is believed that the new fiscal year will allow a more realistic budgeting of Association funds than was formerly possible. In accordance with this change, there are presented in the Treasurer's Report the audited figures for the six months ended June 30, 1946, the interim period brought about by the change from one fiscal period to another. While there are no figures strictly comparable with those contained in this report, it is possible to adduce some comparisons which may be of interest.

Combining the auditor's report for the first six months of 1946 with the Association's own book figures for the final six month of the year, there appears a total revenue for the year 1946 of $652,791, compared with 1945 revenues of $167,171. Total 1946 expenditures were $387,572, compared with $235,532 for 1945. For the year there was a net gain in assets of $265,219, compared with a net loss of $68,361 for the preceding year.

Included in the above figures are revenue of $69,755 and expenses of $57,349 for the official journal, CALIFORNIA MEDICINE. For the year 1945 the comparable figures were $53,329 in revenues and $42,661 in expenses. The resultant net profit for the journal was $12,406 for 1946, an increase of 16.3 per cent over the $10,668 profit shown for 1945. Advertising revenues were $68,350, an increase of 31.6 per cent over sales of $51,933 for 1945, and printing costs of $42,291 were 49.1 per cent higher than 1945 costs of $28,366. The higher printing expenses came from a larger journal to a certain extent but reflect primarily the inflationary prices resulting from higher paper and labor costs. What would ordinarily be figured as a highly satisfactory increase in advertising sales was almost completely washed out by higher production expenses. It is hoped that some improvement in this situation will occur in 1947.

During 1946 the Association, acting through its corporate holding company, Trustees of the California Medical Association, increased its holdings of U. S. Treasury Bonds from $124,000 to $294,000. Surplus funds of the Association, by action of the members of the Council who also serve as members of the Trustees of the C.M.A., have thus been invested in Government securities which are fully negotiable and available for use when and if needed.

4. *California Medicine.* The Association's journal underwent a change in name and format during 1946, adopting the name CALIFORNIA MEDICINE and presenting a new cover and new format on its inside pages. It is noteworthy that these changes have brought to the journal a national recognition from many sources, both professional and commercial. In a meeting of state association editors in Chicago last December, CALIFORNIA MEDICINE was singled out as a shining example of what could be done to modernize and make attractive a state medical journal.

For 1947 there are further changes planned in the journal, all designed to add to its attractiveness, its reader interest and its general usefulness to the Association.

5. *Public Policy and Legislation.* Your Executive Secretary has cooperated with the Committee on Public Policy and Legislation throughout the year. This has involved attendance at various meetings, appearances before legislative committees and numerous conferences. With the 1947 session of the State Legislature now underway, the demands of this portion of the Association's work will grow to larger proportions.

Under this same category there should be mentioned the work of the Conference of Presidents and Other Officers of State Medical Associations. Your Executive Secretary has been privileged to attend the meetings of this body and of its Executive Committee and to participate in some of the planning of this organization, which has attained a nationwide stature and importance in the space of only a few short years.

The Executive Secretary has also continued to function as Executive Secretary of The United Public Health League, a federation of state medical associations which maintains a Washington office. During 1946 this League increased its membership from six to eight state medical associations, all located in the western area. This organization has been recognized as fulfilling an important function in the field of medical legislative representation.

6. *Industrial Medical Fees.* Since late in 1942 the Executive Secretary has worked closely with two special C.M.A. committees in an endeavor to bring about an increase in the fees allowed for medical and surgical services in industrial compensation cases. In the middle of 1946 the Industrial Accident Commission of the State of California recognized this work and adopted a new schedule of fees for such services, the schedule representing what the insurance carriers term a 27 per cent increase over the former fee level. The new schedule became effective November 1, 1946, and the Association in advance of that date mailed a complete fee schedule to all its members. Additional requests for copies of this schedule are still being received daily and a total of more than 12,000 copies has already been distributed. Interestingly enough, some of the departments of the State of California are using the C.M.A. schedule in preference to that printed and distributed by the State itself.

It is recognized that the new fee schedule is not complete and may not be entirely satisfactory to all specialists.

In this connection, members have been urged to send in to the C.M.A. Committee on Industrial Practice their suggestions for improvements. It is hoped that a review of the entire schedule may be had later in the year and any inequities adjusted.

7. *Annual Session.* Arrangements for the 1947 Annual Session are proceeding in orderly fashion and all indications point toward a highly successful meeting. Technical exhibits will again be shown; the exhibitors this year will contribute more than ever before and it is hoped that members attending the session will show their appreciation by looking at the exhibits and visiting with the representatives present.

8. *Advisory Planning Committee.* This committee has met throughout the year, the Executive Secretary presiding over each meeting except one which was held during his absence from California. The reports and recommendations of this committee have been reported in the minutes of the Council, to which the Advisory Planning Committee reports and which has complete authority over any suggestions made by the committee.

9. *A.M.A. Annual Meeting.* Your Executive Secretary was pleased to cooperate in some of the arrangements for the A.M.A. 1946 annual meeting, held in San Francisco. During this period he served as temporary chairman of a new organization of medical society executives; this group was formally organized at the Chicago meeting of the A.M.A. last December and your Executive Secretary was honored by election to its Executive Committee.

10. *Conclusion.* This report would be incomplete without an expression of thanks from the Executive Secretary to the Officers and Councilors of the Association for their constant and ready cooperation and assistance in all respects. Similar thanks go to the officers of the county medical societies, members of the Association committees, A.M.A. Delegates and many others who have been of invaluable aid in many ways.

Respectfully submitted,

JOHN HUNTON, Executive Secretary.

REPORT OF THE EDITOR

To the President and the House of Delegates:

Since the report of last year there has been elected a new editor and established a new journal, CALIFORNIA MEDICINE.

In May, 1946, after twenty years of faithful service, the editor of CALIFORNIA AND WESTERN MEDICINE, Dr. George H. Kress, retired and the present editor was elected by the Council with the approval of the House of Delegates.

Changes in the Journal have been striking. The name was changed to CALIFORNIA MEDICINE with initiation of volume 65 in July, 1946. This distinctive name seemed appropriate since the Journal no longer was the official journal of the Nevada and Utah Medical Associations. A new cover, distinctive for California, increase in size of the type for scientific articles, rearrangement of articles, editorials and official reports have been carried out and new departments have been added. With the beginning of volume 66, in January, 1947, the style of type has been changed to make reading easier and more attractive.

The principal functions of a state medical journal appear to be educational and informative. It is educational to elevate the standards of medical practice and research in the state and informative to keep the readers abreast of the activities of organized medicine.

Every effort has been made to improve the type of scientific articles in CALIFORNIA MEDICINE. In this effort the Editor has received much cooperation from various members of the Association. In addition to scientific articles, clinical material has been presented in the form of clinical conferences and clinical pathological conferences. Furthermore, an article on medical progress, an interpretive review of some phase of medicine, has been presented with each issue.

Presentation of material on the activities of the California Medical Association has been steadily improving. California Physicians' Service and various groups within the C.M.A. such as the Council, Cancer Commission, Executive Committee and the Public Relations Counsel have been given opportunities to present information of their respective activities. As yet this phase of the Journal's activities has not been developed to the fullest possible extent. The Journal, received by every member of the C.M.A., is in an unusual position to present in an attractive form much informative data regarding official activities of the association and in this way to lead in the development of a sound "public opinion" among doctors of the state.

Other data presented in CALIFORNIA MEDICINE is classified under Editorials, Information, News and Notes, Book Reviews, Letters to the Editor, and Medical Jurisprudence.

Much of the credit for whatever good changes have been made in CALIFORNIA MEDICINE during the past year is due to the efforts of Robert Edwards who, as Assistant to the Editor, has well handled most of the details of running the Journal and establishing the make-up of it, to members of the Editorial Board who have candidly reviewed many papers and made effective suggestions, to Dr. Edgar Wayburn of San Francisco and Dr. Edward Boland of Los Angeles, who have handled the clinical conferences, and to Drs. E. W. Page of Berkeley and A. J. Scholl of Los Angeles, who have taken under their wing the Medical Progress section of the Journal.

Respectfully submitted.

DWIGHT L. WILBUR, *Editor.*

REPORT OF THE LEGAL DEPARTMENT

To the President and the House of Delegates:

The Legal Department submits the following report covering the period from the last session of the House of Delegates to the present time:

Our work has involved legislation activities, preparation and rendering of opinions to the Association and committees and members on various matters, attendance at all meetings of the Council, Executive Committee, Committee on Public Policy and Legislation and Advisory Planning Committee, and attendance at meetings of other standing and special committees. The work of this department day by day is so detailed and voluminous that it is not possible, without unduly extending this report, to do more than touch on the highlights. Furthermore, a published report should not go into detail on matters involving the professional relationship of attorney and client.

1. *Legislation:* The Committee on Public Policy and Legislation has been constantly at work during the entire year, and we have endeavored to carry out all of its instructions and to assist it at all times. Prior to the commencement of the present session of the Legislature, we prepared opinions with respect to numerous legislative proposals and drafted for introduction in the Legislature those particular proposals that were adopted by the Coun-

cil. Since the commencement of the session, we have analyzed all bills introduced relating to or affecting the practice of medicine, and have examined all bills introduced in order to ascertain whether or not medicine was in any way affected. There were over forty-five hundred bills introduced, and several hundred of these affected medicine in one way or another. Between the time of preparing this report and the adjournment of the Legislature, we will constantly be at the service of the Committee on Public Policy and Legislation. There are a great number of bills in the present Legislature that affect the medical profession adversely, and the labor involved in attempting to defeat them is going to consume countless hours. Of course, the bills of major importance are the compulsory health insurance bills, Assembly Bill 1500 and Senate Bill 788; but in addition to these there are well over a hundred other bills that require vigorous opposition. There are a number of bills approved by the Council which will be actively supported, and these will likewise require tremendous effort.

2. *Industrial Accident Commission Fee Schedule:* During the past year the controversy over increase in the Industrial Accident Commission's fee schedule has been temporarily settled by adoption by the Commission of a compromise schedule. This was accomplished after preparing and submitting to the Commission a new petition, and after several public hearings, including one hearing of the Assembly Interim Committee on Insurance. The compromise schedule finally adopted by the Commission involved a substantial increase over prior rates. We will report in more detail with respect to the Industrial Accident Commission fee schedule during the sessions of the House of Delegates.

3. *California Physicians' Service:* Shortly after C.P.S. was organized in 1939, the California Insurance Commissioner contended that it was illegally operating, in that it was not incorporated as an insurance company and in that it had not complied with the insurance laws. We contended that C.P.S. was operating legally because it is a service organization composed of doctors of medicine and is not an insurer. The dispute between the Insurance Commissioner and C.P.S. resulted in commencement of an action in the Superior Court in San Francisco in 1940 by C.P.S., seeking a declaratory judgment on the issue. In the Superior Court the case was decided in favor of C.P.S. The Insurance Commissioner then appealed to the District Court of Appeal, which affirmed the judgment of the Superior Court. The Insurance Commissioner then appealed to the California Supreme Court, which on August 27, 1946, rendered its decision in favor of C.P.S. All seven justices of the court concurred in the conclusion that C.P.S. is not subject to the jurisdiction of the Insurance Commissioner. The court stated:

> "Certainly the objects and purposes of the corporation organized and maintained by the California physicians have a wide scope in the field of social service. Probably there is no more impelling need than that of adequate medical care on a voluntary, low-cost basis for persons of small income. The medical profession unitedly is endeavoring to meet that need. Unquestionably this is 'service' of a high order and not 'indemnity'."

Accordingly, the legal status of C.P.S. has finally been clarified, and its classification as a service organization rather than an insurance company has been vindicated. Aside from the principles involved, the decision of the Supreme Court in favor of C.P.S. has a highly important practical result. In California, by provision contained in the state constitution, the gross receipts of insurance companies are subject to a tax of 2½ per cent. If C.P.S. had been held to be an insurance company, it would have become liable for payment of the 2½ per cent gross premiums tax. At present, this tax would amount to more than $125,000.00 per year. If the tax had become payable, it would have reduced by that sum the funds available for payment for medical services.

The decision of the California Supreme Court in favor of C.P.S. has received widespread publicity and comment in legal journals throughout the United States, and it is likely that the case will become a major precedent throughout the Nation for the legal classification of prepaid medical service plans.

4. *Attendance at Meetings:* As previously stated, we have attended all Council meetings during the year, all meetings of the Executive Committee, all meetings of the Committee on Public Policy and Legislation, and all meetings of the Advisory Planning Committee. In addition, we have attended a number of meetings of county societies, special committees of the Association, and conferences with representatives of other organizations. In all, during the year the single item of attendance at meetings has consumed over twenty-five full days.

5. *Opinions:* During the year we rendered a number of miscellaneous opinions to members on questions which arose in connection with their practice. Among the subjects covered were: sterilization; proper execution of birth certificates; social security tax; necessity of autopsy permits; hospital staff regulations; admissibility of patients in county hospitals; interpretation of Principles of Medical Ethics; disciplinary procedure in various county medical societies; and admission of new members. We have also passed upon malpractice insurance policies held by a number of members.

In closing, we wish to express our constant desire to service the profession to the best of our ability.

Respectfully submitted,

PEART, BARATY & HASSARD, *General Counsel.*

REPORTS OF DISTRICT COUNCILORS

FIRST COUNCILOR DISTRICT

Imperial, Orange, Riverside, San Bernardino and San Diego Counties

To the President and the House of Delegates:

The great influx of new physicians following D-Day and the return to their homes and former practices of the local ex-service men caused many difficulties in the obtaining of housing and office space. In some instances offices were shared with returnees until they were able to find places for themselves. The County Societies have made notable increases in membership and several new groups and partnerships have been formed. There seems to be general satisfaction with the volume of practice.

There is great general interest in Governor Warren's second attempt to influence the Legislature to socialize California medicine, and an almost universal desire to help protect our profession from this danger of the gradual loss of our liberty.

Respectfully submitted,

H. A. JOHNSTON, *Councilor,*
First District.

SECOND COUNCILOR DISTRICT

Los Angeles County

To the President and the House of Delegates:

Your Councilor for the Second District has attended all of the California Medical Association Council meetings for the past year. The Council as a whole has endeavored to the fullest extent to carry out the instructions given to it by the House of Delegates. Your Councilor from the Second District has at all times had foremost in mind the welfare of the medical profession at large and has acted upon all matters before the Council, endeavoring to represent our District the way that you have instructed me through the House of Delegates.

I again ask that all of the Delegates and Alternates, as well as all of the members of the medical profession will attend all of the meetings of the House of Delegates when it convenes in May of 1947, here in Los Angeles, at the Biltmore Hotel. All members of the California Medical Association are welcome.

The minutes of the Council have been published in California Medicine at regular intervals for your study. I hope that you have read them completely and thoroughly.

Respectfully submitted,

Jay J. Crane, *Councilor,*
Second District.

THIRD COUNCILOR DISTRICT

Kern, San Luis Obispo, Santa Barbara, Ventura and Inyo-Mono Counties

To the President and the House of Delegates:

Most of the Third Councilor District component societies have been visited by the Councilor during the past year. All are well organized and functioning smoothly. We have found them very well informed regarding political and economic problems confronting the Profession. There are from 25 to 30 per cent more doctors in the District than there were preceding the war. This probably is not too many to care for the increased population that has also occurred.

Respectfully submitted,

H. E. Henderson, *Councilor.*
Third District,

FOURTH COUNCILOR DISTRICT

Fresno, Madera, Kings, Tulare, Merced, Mariposa, Calaveras, San Joaquin, Tuolumne, and Stanislaus Counties

To the President and the House of Delegates:

No important organization problem has required attention in this district during the past year.

The members of our County Medical Societies, with very few exceptions, approve the program of the C.M.A. for continued defense of the American way of practicing medicine. The effort to increase the facilities for insurance against illness and hospital costs is better understood and appreciated. The public relations activities, and the promotion of every better scientific medical care are well endorsed.

One of the unsolved problems here, as elsewhere, is the lack of sufficient hospital space and facilities, and trained nurses, to take care of our greatly increased population. The supply of physicians is now ample, but scarcity of office space and housing facilities continues among difficulties for many newcomers.

County Medical Societies show greatly increased memberships. New members are accorded friendly cooperation and consideration.

The duties of the Councilor are given due attention.

Respectfully submitted,

A. E. Anderson, *Councilor,*
Fourth District.

FIFTH COUNCILOR DISTRICT

Monterey, San Benito, San Mateo, Santa Cruz and Santa Clara Counties

To the President and the House of Delegates:

Marked changes have taken place in the Fifth Councilor District since the last meeting of the House of Delegates. The influx of new doctors to this district, I am sure, has been even more noticeable than in some of the metropolitan areas. We are happy to welcome these men into our county society and hope they will become imbued with the proper spirit and become interested members in the affairs of the C.M.A.

In Santa Clara County we have followed the lead of other counties in obtaining an executive secretary. It has worked out very well and we would recommend the same to other counties that could see their way clear to employ one. Also, cooperating with other counties of the bay district, we have established a bureau of medical economics which is working out very well.

Good programs have been held to indoctrinate the new members in the type of work carried on by the Santa Clara County Society.

Meetings with the C.P.S. officers have been held throughout the district this year and I am sure that the participating doctors and the officials of the C.P.S. have a better understanding of the mutual problems which have confronted them.

The Woman's Auxiliary has kept up its splendid work throughout the district.

Respectfully submitted,

R. S. Kneeshaw, *Councilor,*
Fifth District.

SIXTH COUNCILOR DISTRICT

San Francisco County

To the President and the House of Delegates:

Since my election to the Councilorship of the Sixth Councilor District in May of 1946, I have attended all of the meetings of the Council as well as of the Executive Committee.

The San Francisco County Medical Society has increased in membership in the past year due in part to the returning of many men from the service, and that institution has now 1,371 members.

The San Francisco County Medical Society has taken a great deal of interest in trying to find office space, to obtain hospital appointments, and otherwise to coordinate the activity of the Veteran's return to San Francisco since the war.

The other activities of the Society consist in forming a new medical economics bureau patterned after the one in the East Bay and which should prove successful.

The other activities of the County Society in San Francisco have been concerned with numerous political problems which faced the medical profession during the last year, and which it again faces at this time.

Increasing interest of all of the members of the San Francisco County in the Medical Society itself and its activities is very gratifying.

Mr. Frank J. Kihm, the Executive Secretary, has proven an asset of great value.

Respectfully submitted,

Edwin L. Brück, *Councilor,*
Sixth District.

SEVENTH COUNCILOR DISTRICT

Alameda and Contra Costa Counties

To the President and the House of Delegates:

The new program of the Alameda Country Medical Association, inaugurated in 1945 with the employment of Mr. Rollen Waterson as full-time lay secretary, is rapidly approaching a point where it may be described as an unqualified success.

Public relations, properly so called and as distinguished from "publicity," provides the common denominator for the program, which attempts to perfect individual and collective relations within the profession and with the public.

The bureau of Medical Economics, established to improve economic relations of physicians and patients, is well on the way toward the realization of its objective. Incidentally, it is out of the red and self-supporting. Contra Costa County Medical Association is taking advantage of the Alameda County Bureau.

Backed by the work and facilities of the Bureau, the Association has advertised an unconditional guarantee of medical care for everyone in the county, regardless of ability or inability to pay.

Many other accomplishments are listed by the A.C.M.A. Among them is a malpractice insurance program which provides members with broader coverage, effective claims prevention, greater protection, and substantially reduced premiums.

1946 saw the organization of the Bay Area Coordinating committee, the purpose of which is to extend and coordinate the work of the separate counties. The Bureau of Medical Economics now has offices in San Francisco and San Jose, and it is expected that the public relations and malpractice programs will be similarly extended.

Respectfully submitted,

LLOYD KINDALL, *Councilor,*
Seventh District.

EIGHTH COUNCILOR DISTRICT

Alpine, Amador, Butte, Colusa, Eldorado, Glenn, Lassen, Modoc, Nevada, Placer, Plumas, Sacramento, Shasta, Sierra, Sutter, Tehama, Yolo and Yuba Counties

To the President and the House of Delegates:

During the past year I have visited many of the county medical societies in this district and have discussed with them the problems which confront the practice of medicine and have outlined some of the plans which have been formulated for the solution of these problems.

Being located in the legislative center of the state, I have assisted the California Medical Association committees in opposing compulsory health insurance and have cooperated with them in caring for the medical needs of legislators during their stay in Sacramento.

Considerable assistance was furnished the State Employment Stabilization Commission, Department of Employment, in planning medical regulations and management, disability forms, remuneration for examinations, and various other details incidental to the smooth functioning of the medical aspects of sickness disability insurance. I am pleased to report that complete cooperation in every respect was obtained from this commission in arranging these medical details and sincerely hope that similar close liaison continues in future.

Respectfully submitted,

FRANK A MACDONALD, *Councilor,*
Eighth District.

NINTH COUNCILOR DISTRICT

Del Norte, Humboldt, Lake, Marin, Mendocino, Napa, Siskiyou, Solano, Sonoma, and Trinity Counties

To the President and the House of Delegates:

1. Your Councilor was ahle to visit the County Societies in a very limited fashion due to the press of practice and many other meetings in this State, in Missouri, Illinois, and in Washington, D. C. Approximately six weeks of the year were consumed in the National Capital, as an observer at the hearings of the Wagner-Murray-Dingel Bill for Compulsory Sickness Insurance (S-1606). Fortunately the legislation never got out of the Committee for a vote, but we are quite sure, had it come to a vote in 1946, it would have been defeated. However, President Truman has again come out favoring a compulsory system and the medical profession will be obliged to fight the measure in Washington as well as Governor Warren's Compulsory Bill, introduced in our State Legislature at the present time.

2. Vallejo and Solano County Medical Society entertained the members of the Societies of the District at a dinner on August 27, honoring President Samuel J. McClendon, and President-Elect John W. Cline. There was no professional program but we all had a good dinner and following this, excellent entertainment and good fellowship.

Dr. Sidney Garfield and Permanente Foundation are still in our hair in Solano County and are still making progress in selling medical service to people living in the housing units as well as having been granted the opportunity to sell such prepaid service to employees of the Mare Island Naval shipyard to the exclusion of any other plan or agency, such as C.P.S. In my last year's report, mention was made that C.P.S. made a mistake when it failed to subsidize the C.P.S. program for six months or a year or longer in this area. My reason for saying this is that I feel that when C.P.S. withdrew from the Chabot Acres Housing area and Sidney Garfield, M.D., and employees moved into the field C.P.S. had covered and where a need for prepaid service had been shown and the people educated to the program, it was very easy for Garfield to carry on in the same Medical Center previously occupied by C.P.S. Garfield's influence seems to have grown and there is now a possihility that he will be able to acquire a hospital in Vallejo or in Vallejo Township and become a real competitor of the existing medical and hospital facilities here. Many doctors are coming to this area and there is now no need for such groups as that of Sidney Garfield, M.D., and associates. There are now forty-eight Doctors of Medicine in Vallejo, as compared to twenty-eight before the war. The city of Napa has likewise gained about the same relative number. Vallejo has more than ample hospital beds as long as the Vallejo Community Hospital continues to operate.

I will visit all my counties before the convention in May.

Respectfully submitted,

JOHN W. GREEN, *Councilor.*
Ninth District.

REPORTS OF COUNCILORS-AT-LARGE

To the President and the House of Delegates:

During this, my first, year as a member, I have attended all the meetings of the Council of the California Medical Association.

While the matters considered by the Council have been many and varied, among the most important were those respecting public relations and the extension of medical care.

During the year there has been steadily carried on, under Council guidance, a campaign to educate the people of the state in the importance of insuring themselves under a voluntary prepaid medical care plan. The eventual success of this project depends upon the satisfaction of the individuals covered with the professional attention rendered by the servicing physicians.

The harmonious functioning of the Council reflects the

increasing strength and unity which is being manifested throughout the Association.

Respectfully submitted,

LOUIS J. REGAN, *Councilor-at-Large.*

To the President and the House of Delegates:

As Councilor-at-Large I have attended all regular and special meetings of the Council and House of Delegates and have taken an active part in the deliberations of these organizations. With this year I am completing my eighth and last year as Councilor-at-Large. These years have been strenuous ones with the ever present compulsory health insurance before us. I believe the profession is better organized and more united than ever before. Our bulwark and safety lies in making voluntary health insurance work.

Respectfully submitted,

E. EARL MOODY, *Councilor-at-Large.*

To the President and the House of Delegates:

It has been my pleasure to attend all meetings of the Council since my election as a Councilor-at-Large at the 1946 meeting. It has been for me, as a freshman member, a year of orientation and education in the responsibilities and workings of the Council and of the many items of business and policy that appear before it for consideration.

Respectfully submitted.

C. V. THOMPSON, *Councilor-at-Large.*

To the President and the House of Delegates:

As one of your Councilors-at-Large, I have regularly attended the meetings of the Council during the past year. In reviewing these meetings it has impressed me that the work of the California Medical Association is constantly growing and that quarterly meetings of the Council are probably inadequate to deal with the problems that are constantly arising. It may well be that more frequent meetings of the Council are in order. As Chairman of the Executive Committee it has seemed to me proper to call more frequent meetings of the Committee in an attempt to relieve the Council of certain minor matters and to acquaint at least a few members with current problems more quickly than would otherwise be the case.

Respectfully submitted,

SIDNEY J. SHIPMAN, *Councilor-at-Large.*

To the President and the House of Delegates:

As a Councilor-at-Large of the California Medical Association, for 1946-1947 I have attended all of the Council meetings, and a number of the component County Society meetings.

I have worked for the advancement of organized medicine to the end that we may pursue the practice of our profession in this state free of political influences and restrictions.

I endorse the C.P.S. as our best weapon of defense in our attempt to preserve our present method of the practice of medicine in California.

Respectfully submitted,

WALTER S. CHERRY, *Councilor-at-Large.*

To the President and the House of Delegates:

It has been my privilege to attend all the meetings of the Council and to take an active part in the interesting but most difficult work carried on by it. I have also attended the meetings of the Council of the Alameda County Medical Association in order to correlate the work of both state and county organizations.

Respectfully submitted.

H. GORDON MACLEAN, *Councilor-at-Large.*

REPORT OF THE EXECUTIVE COMMITTEE

To the President and the House of Delegates:

The Executive Committee has held meetings during the past year and has submitted the decisions of such meetings to the Council for approval. The Executive Committee has been able to filter much of the work of the Council and since the committee consists of only five voting members it has a flexibility in arranging meetings that the Council lacks. All actions of the committee are subject to Council approval.

Respectfully submitted.

SIDNEY J. SHIPMAN, M.D., *Chairman.*

AUDITING COMMITTEE

To the President and the House of Delegates:

The Auditing Committee has performed the functions laid down in the by-laws. The professional audit of the Association's books showed them to be in order and the Committee has submitted its recommendations for the 1948 budget.

Respectfully submitted.

SIDNEY J. SHIPMAN, *Chairman.*

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

To the President and the House of Delegates:

Following the adjournment of the Special Session of the Legislature in 1946, there was a General Election in our state which was of great interest to the entire medical profession. The profession as a whole interested themselves in the election in their particular counties and districts, and we believe the results of this election were generally satisfactory to our profession.

Since the convening of the 1947 Regular Session of the Legislatnre we are faced with many bills, some of which are not best for the general welfare of the public and better public health. The bills that are deemed detrimental to the quality of medical practice will be strenuously opposed.

There are over 4,000 bills introduced and at this time they have not all been printed so it is impossible to state the number that will affect the general practice of medicine.

Your Committee is grateful to a great many medical men in our state who are always loyal and dependable for assistance at all times.

Respectfully submitted.

D. H. MURRAY, *Chairman.*

ADVISORY COMMITTEE

To the President and the House of Delegates:

Duties of the Advisory Committee have been to keep in contact with the legislators, have frequent meetings with Mr. Ben Read, and make recommendations to the Legislative Committee as to procedure.

Respectfully submitted,

JUNIUS B. HARRIS, *Chairman.*

COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION

Executive Group

George M. Uhl, Chairman, 1949
E. Earl Moody, 1947 C. M. Burchfiel, 1948

To the President and the House of Delegates:

During the past year the committee has kept close watch on activities dealing with public health and public instruction and has attempted to foster a close accord between county medical societies and official health agencies. There appears to be developing an increasing interest, on the part of county societies, in developing better public understanding of medical economics through the use of the press, radio and the development of speakers' bureaus. It is the hope of the committee that activities in the health education field will be markedly increased during the next year.

Respectfully submitted,

GEORGE M. UHL, *Chairman.*

COMMITTEE ON HISTORY AND OBITUARIES

Executive Group

Morton R. Gibbons, Sr., Chairman, 1947
Robert A. Peers, 1948 E. T. Remmen, 1949
George H. Kress, ex officio

To the President and the House of Delegates:

Since the appointment of Dr. George H. Kress to the office of historian of California Medical Association, the efforts of the committee have been to cooperate with Dr. Kress in the plan to discover, secure and preserve all historical data concerning California medicine. All physicians in California and all others who are interested, are urged to preserve and forward to the historian all pertinent historical items which have come to their attention, also to make a serious effort to discover historical information for preservation by the California Medical Association.

A letter is being prepared by Dr. Kress for the secretaries of County Societies, in which will be set forth the character of information desired and details of compilation and presentation. Information in these letters will be available to all C.M.A. members through the County Society secretaries.

Respectfully submitted,

MORTON R. GIBBONS, SR., *Chairman.*

COMMITTEE ON HOSPITALS, DISPENSARIES, AND CLINICS

Executive Group

Clarence E. Rees, Chairman, 1948
Anthony J. J. Rourke, 1949

To the President and the House of Delegates:

The Hill-Burton Bill has been called to the attention of this committee and its application to hospital construction in California is under consideration of the committee. No other matters have been brought to the attention of the committee during the year. A meeting of this committee has been called for the first day of the 1947 annual session of the California Medical Association.

Respectfully submitted,

CLARENCE E. REES, *Chairman.*

COMMITTEE ON INDUSTRIAL AND CONTRACT PRACTICE

To the President and the House of Delegates:

Your Committee on Industrial Practice has been inactive during the year, officially. There are many things which your committee, as individuals and members of this committee, has accomplished and done during this past year.

The new fee schedule for compensation practice has been adopted by the Industrial Accident Commission. The groundwork for this fee schedule was accomplished some time ago and actually put into effect by our legislative Special Committee and our legal advisor, but your committee has felt that part of the actual responsibility for promoting this favorable legislation has been due to its efforts.

At the present time, local problems arising out of employer and employee health plans, and especially industrial hygiene, have been coming more and more into the notice of employer groups, as well as union and other employee associations.

We hope during the years to come that our Committee on Industrial Practice will be able to keep closely in touch with Chamber of Commerce groups and others, so that eventually the problem of preventive medicine and hygiene in industry can be one of the main contributions that can be made by the Medical Association through their Committee.

Respectfully submitted,

DONALD CASS, *Chairman.*

COMMITTEE ON MEDICAL ECONOMICS

Executive Group

H. Gordon MacLean, Chairman, 1948
Howard W. Bosworth, 1946 Wayne J. Pollock, 1947

To the President and the House of Delegates:

No matters or problems have been referred to the Committee on Medical Economics during the past year and no meetings of the Committee have been held. One wonders whether or not standing committees of this type have any real justification for their existence.

Respectfully submitted,

H. GORDON MACLEAN, *Chairman.*

COMMITTEE ON MEDICAL EDUCATION AND MEDICAL INSTITUTIONS

Executive Group

B. O. Raulston, Chairman, 1947
L. R. Chandler, 1948 Francis Scott Smyth, 1949

To the President and the House of Delegates:

Teaching of medical students has been quite considerably affected during the last year. Relatively large numbers of faculty members have returned from military service, have resumed their former positions as full-time teachers or as practitioners who have given a part of their time to teaching in the medical schools. Large numbers of young physicians, many of them having had a paucity of clinical experience during their military service, have returned eagerly to the responsibilities of making ward rounds and assisting in bedside instruction of students. These men themselves are among the most eager and enthusiastic that may be found. This spirit is of necessity passed on to the students with whom they work, and the result is good and wholesome.

The number of academically qualified applicants for admission to medical schools appears to increase. Veterans of the recent war are conspicuous in the list of applicants. A great many others were not eligible for military service. The problem of selecting students for 1947 classes becomes more complicated than ever.

The requests for reviews and additional training for doctors who have returned from military service have continued to be in excess of the opportunities offered. Increased numbers of residencies, review and refresher courses, and prolonged courses in the various departments

of the medical schools have not by any means satisfied the requests for such training. It is hoped that quality, rather than quantity, may be the ruling influence in providing such opportunities as are possible to those who seek additional training.

Respectfully submitted,
B. O. Raulston, *Chairman.*

COMMITTEE ON MEDICAL DEFENSE

Executive Group

William A. Key, Chairman, 1948
Nelson J. Howard, 1947 Louis J. Regan, 1949

To the President and the House of Delegates:

During the past year considerable attention has been given to the group type of malpractice insurance as exemplified in Los Angeles and Alameda counties. The concerted program in these localities has in its favor the greater dissemination of malpractice information. It becomes increasingly apparent that there is more and more need for a livelier interest generally in the problems that confront doctors today in the management of this essential part of the practice of medicine. As yet, however, the time does not seem to have arrived for a statewide organization relative to the handling of malpractice insurance. There remains considerable to be done in investigating ways and means of solving this difficult problem. Much has to be done yet in educating the profession in several phases of this type of insurance and to lead them to believe that an affiliation with a sound company is of far greater importance than a reduction in premiums.

Respectfully submitted,
William A. Key, *Chairman.*

COMMITTEE ON PUBLICATIONS

To the President and the House of Delegates:

Until recent years this committee had important duties. Now the Executive Secretary of the Association and the Execuive Committee of the Editorial Board perform all of them, so little ever happens for us to do.

Respectfully submitted,
George W. Walker, *Chairman.*

COMMITTEE ON POSTGRADUATE ACTIVITIES

To the President and the House of Delegates:

In the year 1946 there was no meeting of the Committee on Postgraduate Activities.

During the year various colleges, hospitals and clinics throughout the United States offered postgraduate training under the G.I. Bill of Rights for returning veterans from World War II. The Committee has cooperated by assisting and referring men to these various opportunities as they have arisen.

It is recommended that a list of post-graduate courses for veteran and civilian physicians be published in the California Medicine from time to time, in order to apprise California physicians of the opportunities for postgraduate training available to them.

Respectfully submitted,
John C. Ruddock, *Chairman.*

COMMITTEE ON PUBLIC RELATIONS

John Hunton, Director

To the President and the House of Delegates:

Again in 1946 the Committee on Public Relations was inactive, its specified functions having been directed to the hands of professional public relations counsel. It has been the privilege of the director to work closely with the professional firm employed and to contribute to its work wherever possible.

Respectfully submitted,
John Hunton, *Director.*

COMMITTEE ON SCIENTIFIC WORK

To the President and the House of Delegates:

While we have regained some degree of "normalcy" since the end of the War, with resumption of regular four-day Annual Sessions, and such juxta-convention activities as the Cancer Commission Conferences, we are still confronted with the problem of a suitable location for our annual meetings. The Council had hoped—and planned—to hold the 1947 Annual Session at Coronado, but, upon investigation, found facilities so inadequate as to make it impractical. The Committee believes that a meeting in the central or northern part of the state is advisable for many reasons, not least of which is relief for our hard-working Los Angeles colleagues who have been our hosts so often in recent years.

The Committee on Scientific Work has made every endeavor to arrange a program for this year's Annual Session that will be instructive and enjoyable to every member of the California Medical Association. At a joint meeting of the committee with the secretaries of all the scientific sections, a lengthy discussion was had concerning possible changes from past routines that might improve the meetings. The Section Officers have been asked to poll the members of their individual Sections on the question of the desirability of holding more general meetings; and of devoting only one day of the Annual Session to Section meetings (with short, highly technical papers before the Section proper). It is hoped that all members will express their considered opinions on this question, as well as make other suggestions for the general improvement of the meetings, so that the Committee on Scientific Work may be guided by their wishes in arranging future programs.

Respectfully submitted,
L. Henry Garland, *Chairman.*

CANCER COMMISSION

To the President and the House of Delegates:

When the Cancer Commission was organized on April 27, 1931, by the House of Delegates the announced purpose was: I. That adequate means be provided in California for the education of the medical profession in the early diagnosis of cancer; II. That more adequate facilities for the diagnosis and treatment of cancer patients be provided; III. That research work on the nature, cause, behavior and treatment of cancer be encouraged.

In June, 1945, the Council directed the Cancer Commission to act on the Board of Directors of the California Division of the American Cancer Society and to cooperate with that organization. In line with the original policy and under that directive the Cancer Commission reports the following progress for the year 1946-47:

I. *Professional Education.*

A program of refresher courses for physicians has been organized both in Los Angeles and San Francisco. These courses have been developed by special committee of the Cancer Commission with the financial assistance of the California Division of the American Cancer Society.

The Tumor Board of the Los Angeles County General Hospital gave a three-day course on "The Diagnosis of Neoplastic Diseases" from January 6 to 8. There were 40 instructors, and 260 physicians were registered. A similar course will be given in September and the intention is to repeat this course twice a year.

In San Francisco, with the cooperation of the University of California and Stanford University, a refresher course will be given on March 27 and 28. Future courses will be announced later.

The Cancer Commission Studies of 1932 has been revised by a committee consisting of Dr. Leonard G. Dobson, Dr. Otto Pflueger and Dr. Clarence J. Berne in cooperation with a representative group of members of the California Medical Association. The material is ready for publication. It is the intent of the Cancer Commission to publish this revised manual in serial form similar to the Illinois Cancer Bulletin. The Cancer Commission Studies, 1947 Edition, will be sent bi-weekly to all members of the California Medical Association. When completed this will form a loose-leaf book and a binder will be provided for members who request it so that the chapters can be assembled as a reference book for the physician's desk.

The Cancer Commission has developed a Speakers Bureau on cancer that is available to the program committee of all county medical societies in California. Speakers or groups of speakers are available for scientific meetings of the County Society on request. The Commission is also prepared to enlarge this program as requested by any society, giving Cancer "Clinics" in addition to formal addresses, or a "Cancer Day" which would include a public meeting.

II. *Facilities for the Diagnosis and Treatment of Cancer Patients.*

At the beginning of the year there were 20 Consultative Tumor Boards in California. At the present time there are 41 Tumor Boards or Tumor Clinics of some type, 24 of which have been approved by the American College of Surgeons. The Executive Medical Director of the Cancer Commission has visited many of these clinics, conferring with them on matters of organization, records and policy. The California Division of the American Cancer Society has made substantial grants to several of them and is prepared to make similar grants to any approved Board where such funds will not be used to replace public funds in tax-supported hospitals.

In ten other approved hospitals in California the medical staff is considering the formation of a Consultative Tumor Board. The Commission and the California Division of the American Cancer Society will give them all needed assistance in the development of their boards.

The Cancer Commission has developed and published a "Minimum Standards" for Detection Centers and Tumor Boards in California to be used as suggestions for the formation of new units and for those which are asking for subsidy from the American Cancer Society.

Cancer Detection Centers are operating at the Community Hospital in Fresno, the Cottage Hospital in Santa Barbara, and in Los Angeles.

The Cancer Commission, in its Tumor Program, is receiving the full cooperation of the American College of Surgeons. Rear Admiral Lucius Johnson, (USN, Rtd), inspector for the American College of Surgeons, is working closely with the Commission and his services are available to the Commission in any of their problems.

The Cancer Commission is initiating conferences in northern and southern California for representatives of approved Tumor Boards. Hospital staffs contemplating the formation of Tumor Boards will be invited to these conferences. The conferences will primarily be round table discussions of problems, records and policy. Representatives of the Commission, the American College of Surgeons and the California Department of Public Health will assist in these discussions.

III. *Cancer Research.*

Research work in America is now being financed and correlated by the American Cancer Society in cooperation with the Committee on Growth of the National Research Council. Research is also being supported by the National Cancer Institute of the United States Department of Public Health. Twenty-five per cent of the funds raised by the American Cancer Society in California is used for research purposes on the national level. Over $80,000 has been returned to California for research projects.

The members of the Commission acting as members of the Board of Directors and of the Executive Committee of the California Division of the American Cancer Society have given a large amount of time throughout the year toward developing the program and projects of that organization. The state office of the American Cancer Society is still in the process of development which is necessary to make it effective. In 1946 the California Division collected $780,000, of which $460,000 is available for lay and professional education and for service to cancer patients in this state. For April, 1947, the goal is $850,000, sixty per cent of which will remain in California for the cancer control program on the state and county level.

The State Commander of the Field Army of the American Cancer Society, Mrs. Ryer Nixon, has been most generous in her time and effort and she has effectively organized many new county branches.

With the California Division of the American Cancer Society the Cancer Commission has published a "Bulletin of Cancer Control." This bulletin is sent to the officers of the California Medical Association and to the officers of the county medical societies. It is also sent to the county branches of the American Cancer Society to keep them informed on the policy and progress of the program in California. The present mailing list is 2,000.

The Cancer Commission has had the cooperation of Dr. Wilton L. Halverson, Director of Public Health, and Dr. Lester Breslow, Chief of the Bureau of Chronic Diseases. The Commission and the Health Department have cooperated in assisting the Los Angeles County Medical Society to conduct a cancer survey involving all phases of the facilities and needs in that county. This project is nearly completed and the results of the survey will be published during March. This survey will form the pattern of the investigation in the other counties throughout the state.

The Cancer Commission has been asked to cooperate with the Department of Public Health in a series of 13 Cancer Conferences to be held for Public Health Nurses during February and March. The Commission is also investigating plans for the formation of a Central Tumor Registry in California. Hospitals, tumor clinics and physicians may be asked to cooperate with this registry on a purely voluntary basis. There is no plan at this time to ask for compulsory reporting of cancer patients.

The Cancer Commission constantly recognizes that it is the agent of some 8,000 members of the California Medical Association and that it is responsible to the House of Delegates and the Council of the California Medical Association. Its final objectives are to help the physician to be better able to cope with the cancer problem and to obtain more and better facilities for the diagnosis and treatment of cancer patients. In so doing the Commission is cognizant of the problems, rights and responsibilities of the doctor in private practice.

The Commission is grateful for the support and assistance it has received throughout the year from the Council of the California Medical Association and from many of the county medical societies.

Respectfully submitted,

LYELL C. KINNEY, *Chairman.*

REPORT OF EDITORIAL BOARD CALIFORNIA MEDICINE

To the President and the House of Delegates:

The members of the Editorial Board are:

Chairman of the Board:
Dwight L. Wilbur, San Francisco

Executive Committee:
Lambert B. Coblentz, San Francisco
Albert J. Scholl, Los Angeles
H. J. Templeton, Oakland
Dwight L. Wilbur, San Francisco

Anesthesiology:
William B. Neff, San Francisco
Charles McCuskey, Los Angeles

Dermatology and Syphilology:
Paul Foster, Los Angeles
H. J. Templeton, Oakland

Eye, Ear, Nose and Throat:
Frederick C. Cordes, San Francisco
Lawrence K. Gundrum, Los Angeles
A. R. Robbins, Los Angeles
Lewis Morrison, San Francisco

General Medicine:
Mayo H. Soley, San Francisco
O. C. Railsbach, Woodland
Lambert B. Coblentz, San Francisco
John Martin Askey, Los Angeles
W. E. Macpherson, Los Angeles

General Surgery:
Frederick L. Reichert, San Francisco
C. J. Baumgartner, Beverly Hills

Orthopedic Surgery:
Frederic C. Bost, San Francisco
Hugh Jones, Los Angeles

Thoracic Surgery:
John C. Jones, Los Angeles
H. Brodie Stephens, San Francisco

Industrial Medicine and Surgery:
Rutherford T. Johnstone, Los Angeles
John E. Kirkpatrick, San Francisco

Plastic Surgery:
George W. Pierce, San Francisco
William S. Kiskadden, Los Angeles

Neuropsychiatry:
Karl N. Bowman, San Francisco
John B. Doyle, Los Angeles

Obstetrics and Gynecology:
Daniel G. Morton, San Francisco
Donald G. Tollefson, Los Angeles

Pediatrics:
E. Earl Moody, Los Angeles
William G. Deamer, San Francisco

Pathology and Bacteriology:
Alvin G. Foord, Pasadena

Radiology:
John W. Crossan, Los Angeles
R. R. Newell, San Francisco
Alvin J. Cox, San Francisco

Urology:
Clark Johnson, San Francisco
Albert J. Scholl, Los Angeles

Pharmacology:
Windsor C. Cutting, Menlo Park
Clinton T. Thienes, Los Angeles

Public Health:
George Uhl, Los Angeles
William P. Shepard, San Francisco

During the year 1946-1947 Dr. Walter Macpherson of Los Angeles has been appointed by the Council to represent General Medicine and Drs. William P. Shepard, of San Francisco, and Dr. George Uhl of Los Angeles have been appointed to represent Public Health. The latter is a new section of the Editorial Board.

The executive committee of the board considered and approved the extensive changes made in CALIFORNIA MEDICINE.

The members of the board have been called upon frequently to render opinions relative to the publication of papers and have generously and promptly given their opinions.

Respectfully submitted,

DWIGHT L. WILBUR, *Chairman.*

COMMITTEE ON ORGANIZATION AND MEMBERSHIP

To the President and the House of Delegates:

The Committee on Organization and Membership hereby submits a report for the year 1946. There is appended a summary of the County Medical Association memberships for the year 1946 compiled by the central office. According to this compilation, the State Association is accruing a substantial increase in membership.

The various component county societies have instituted from time to time procedures which have been of real benefit to the new members of the State Association. Some of our members are still in military service, but the exact number is hard to calculate at this time. The number of licensed physicians in the state was taken from the 1945 Directory, as the State Board of Medical Examiners did not publish a Directory for 1946 in time for inclusion of the information in this report. Naturally, due to the large influx of physicians during the past year, the figures for the number of men actually practicing in California is incomplete and may be at least 1,200 to 1,500 over the number listed.

The Committee on Organization and Membership feels that numerically and professionally the California Medical Association has made real progress during 1946.

Respectfully submitted,

CARL L. MULFINGER, *Chairman.*

C.M.A. County Society Membership Totals for Calendar Year 1946

County Medical Societies	*Membership in 1945*	*Number Licensed Physicians (1945 Directory)**	*Civilian C.M.A. Members in 1946*	*Military C.M.A. Members in 1946*	*Total C.M.A. Members in 1946*
Alameda	670	711	599	60	659
Butte-Glenn	38	35	38	..	38
Contra Costa	73	99	61	4	65
Fresno	157	133	155	10	165
Humboldt	36	34	37	2	39
Imperial	25	21	18	5	23
Inyo-Mono	11	13	5	3	8
Kern	79	86	85	2	87
Kings	23	20	21	2	23
Lassen-Plumas-Modoc	16	18	10	3	13
Los Angeles	3,247	4,014	3,149	323	3,472
Marin	54	64	49	7	56
Mendocino-Lake	27	35	20	4	24
Merced	33	19	30	1	31
Monterey	73	78	64	4	68
Napa	40	50	35	4	39
Orange	137	136	126	21	147
Placer-Nevada-Sierra	37	36	30	..	30
Riverside	77	101	73	7	80
Sacramento	183	155	179	6	185
San Benito	7	9	5	1	6
San Bernardino	184	177	183	10	193
San Diego	381	431	351	40	391
San Francisco	1,242	1,404	1,234	58	1,292
San Joaquin	112	92	113	10	123
San Luis Obispo	29	31	23	2	25
San Mateo	104	113	100	11	111
Santa Barbara	128	109	120	5	125
Santa Clara	242	216	233	9	242
Santa Cruz	47	40	44	3	47
Shasta	22	17	8	7	15
Siskiyou	12	17	10	1	11
Solano	53	71	49	2	51
Sonoma	76	80	50	19	69
Stanislaus	56	48	55	2	57
Tehama	8	11	7	..	7
Tulare	57	59	46	3	49
Ventura	58	55	58	4	62
Yolo	27	17	26	1	27
Yuba-Sutter-Colusa	29	23	24	1	25
Total	7,910	8,878	7,523	657	8,180

* Note. The numbers of licensed physicians under the respective counties are those which appear in such listings of the 1945 Directory of State Board of Medical Examiners. The State Board of Medical Examiners does not list in the county rosters the names of licensed physicians who are in military service. These are listed in the alphabetical index which commences on page 51 of the 1945 Directory, the name of each such military member being marked by a star. No Directory was published in 1946.

PHYSICIANS' BENEVOLENCE COMMITTEE

Executive Group

Axcel E. Anderson, Chairman

Robert A. Peers Elizabeth Mason-Hohl

To the President and the House of Delegates:

The Physicians' Benevolence Committee has continued in the past year to contribute to the Los Angeles County Physicians' Aid Association and to provide care for other needy physicians or their families wherever located. In 1946 there was only one case outside Los Angeles County and aid was given until the death of the physician.

Total expenditures of the committee in 1946 were $6,100, of which $6,000 went as contributions to the Los Angeles County Physicians' Aid Association. The expenses of this organization have gone up in recent months to as much as $1,200 a month dispensed for direct care, for drugs, food, hospitalization, sanitarium care and other items.

Revenues of the Physicians' Benevolence Committee in 1946 amounted to $7,342.30 of which $5,606.50 came from the California Medical Association and $1,717.80 from the Woman's Auxiliary to the C.M.A. The Committee is grateful to the Woman's Auxiliary for its continued generous support of the Committee's activities.

At the close of 1936 the Committee had $3,636.80 in its working fund, or enough for an estimated six months, and $13,477.25 in its permanent fund. The Los Angeles County Physicians' Aid Association reported $200,547 in its building fund at the close of 1946 and total net worth of $215,437. Inasmuch as practically all of the needy cases appear to gravitate to Los Angeles County from all parts of the state, there has been a suggestion that possibly the Los Angeles County organization and the C.M.A. Benevolence Fund might be amalgamated. Any formal suggestions along this line would be presented to the House of Delegates for final decision.

Respectfully submitted,

Axcel E. Anderson, *Chairman.*

ADVISORY PLANNING COMMITTEE

To the President and the House of Delegates:

The Advisory Planning Committee has met in accordance with the instructions given by the 1946 House of Delegates and has reported regularly to the Council. Recommendations submitted to the Council have been printed in the official journal as a part of the Council minutes.

Respectfully submitted,

John Hunton, *Chairman.*

CALIFORNIA PHYSICIANS' SERVICE

To the President and the House of Delegates:

This report on the activities of California Physicians' Service in 1946 is preliminary, and will be supplemented by the Annual Report at the meeting of the House of Delegates in May.

SUPREME COURT DECISION

A milestone in the history of C.P.S. was the decision of the Supreme Court of California, ending some six years of litigation with the Insurance Commissioner. The Court declared C.P.S. to be a service organization, operating legally, and therefore would not come under the jurisdiction of the Insurance Commissioner.

CHANDLER COMMITTEE RECOMMENDATIONS

The recommendations of the Chandler Committee as adopted by the Administrative Members at their meeting in 1946 were thoroughly studied by the Board of Trustees and the administration, and, with one exception, they have all been put into effect. This exception was the recommendation that the income ceiling for service contracts be lowered. The trustees asked the administration to gather figures from various organizations within the state on salary increases during the past five years. This material is being compiled and will be given to the trustees before the May meeting of the California Medical Association.

Under the recommendations of the Chandler Committee, the C.P.S. Fee Schedule is to be reviewed biennially by a committee appointed by the Council of C.M.A. This committee has been appointed, under the chairmanship of Dr. William Bender. C.P.S. has furnished to Dr. Bender a considerable volume of correspondence with member physicians making recommendations concerning the fee schedule.

FINANCIAL AND BUSINESS ADMINISTRATION

In line with efforts to improve the financial condition of C.P.S., the unit value has been maintained at $2.00. The deficit has been considerably reduced during the year, and it is the hope of the trustees that C.P.S. will be in a position to pay the par value of the unit before the end of the year. Mr. Anson Herrick, Certified Public Accountant for C.P.S., in making his annual audit, reported to the board a considerable improvement in the accounting, records and administrative procedures of C.P.S. It is hoped that by March 1 the process of forwarding checks to physicians will have been speeded up, so that payment may be expected within 30 days from the time the bills are received by C.P.S.

In November, the administration authorized the firm of McKinsey and Company, a nation-wide business consultant firm, to make a detailed survey of the procedures and systems in effect in C.P.S. This firm spent several months working very closely with C.P.S. personnel. Its final recommendations stated that C.P.S. is basically sound as set up and in accord with accepted business practices. The chief factors they noted were (1) that C.P.S. is a new organization with very few business precedents to follow, and (2) that C.P.S.'s tremendous growth during the past year has caused numerous problems. They recommended certain specific changes in procedures and systems which are now being studied by the administration.

RELATION WITH HOSPITAL ASSOCIATIONS

During the year C.P.S. has been repeatedly advised of efforts being made to coordinate the three Blue Cross Hospital Plans. To date no definite action appears to have been taken, and the situation remains unchanged.

PHYSICIAN MEMBERSHIP

The year 1946 has seen a tremendous growth in physician participation. Between January 1 of 1946 and January 1 of 1947, there was a net gain of 2,038 member physicians. C.P.S. now has 7,881 physician members. Service is available to beneficiaries in all sections of the state.

However, the recommendation of the Chandler Committee under which C.P.S. pays for services rendered by non-member physicians is beginning to show effects. Physician members feel that they have supported the program from its inception and helped to carry the financial burden during the difficult formative years. Under the rules they are bound not to charge those members under the income ceiling any additional fee; whereas non-member physicians, not bound by the rules, may make such charges. Therefore, the member physician is being penalized for his support of C.P.S. The only solution would appear to lie in further education of the beneficiary members.

BENEFICIARY MEMBERS

On January 1, 1946, C.P.S. had 176,886 beneficiary members. One year later, on January 1, 1947, we have

419,832 beneficiary members, an increase of 243,046 persons who were placed on the books as dues-paying members during 1946. This represents an increase in membership of 137 per cent. It is hoped that by the May meeting, C.P.S. will have nearly half a million beneficiary members enrolled. The new groups enrolled during 1946 averaged 83.6 per cent participation.

With the help of several prominent doctors in the Bay Area, we at last signed a contract with the Standard Oil Company of California. Enrollment of this group began in February of 1947, and will continue until May. Standard Oil Company has approximately 19,000 eligible employees. We have also been authorized to contact their designated subsidiaries as soon as the enrollment of the Standard Oil Company is completed. The employees are to receive medical, surgical and hospital care, the dependents surgical and hospital care.

RATE INCREASE

In September of 1946, the board authorized a rate increase of approximately 25 per cent for beneficiary members. This raise was put into effect faster and more smoothly than any previous increase, and as of February 1, approximately 160,000 persons have been notified of the increase. At the same time, the board authorized establishing a year's waiting period for all members enrolled after October for tonsillectomies and adenoidectomies, hernias, hemorrhoidectomies and varicose veins. The waiting periods apply to medical, surgical and hospital care for these conditions.

GRANGE PROGRAM

Enrollment under the State Grange Program has resulted in the addition of 10,179 members, representing at least 55 per cent participation among 215 individual Granges. This contract, developed by C.P.S. at the request of the Grange, is on a three-year progressive basis, providing for an annual review of the contract and experience thereunder. Contracts under the Rural Health Plan have been converted to the Grange Program. Historically the Rural Program represented the first offering of medical care to the farmers as a particular group, but naturally this could not apply as widely as does the Grange Program.

VETERANS' PROGRAM

At the end of the war, the Veterans' Administration in Washington, D. C., was faced with the problem of providing returning veterans with adequate medical service. General Omar Bradley, Chief of the Veterans' Administration, called upon the physicians in California, as well as a number of other states where there was a large concentration of veterans, to render service to these veterans for service-connected disabilities. Beginning nine months ago, California Physicians' Service, under its contract with the Veterans' Administration, has been providing care to the veterans for service-connected disabilities. There are approximately 1,350,000 veterans who reside in California. Under this program the veteran may go to his own family physician in his own home town for such care. As of January 1, C.P.S. physicians have rendered care to 481,238 veterans, and Federal funds have been encumbered in the amount of $1,232,243.11. In addition, some 2,551 veterans have been examined for pension purposes. It is to be realized that C.P.S. has done much in designing new forms for use under the Veterans' Program.

Recently a committee was appointed by the Board of Trustees, consisting of trustees and of representatives of the American Legion, to see if a plan could be developed under which veterans could receive care for non-service connected disabilities, and under which their families could also receive care.

DISSEMINATION OF INFORMATION

In line with efforts to keep the profession fully informed on developments in C.P.S., representatives of the board and of the administration have appeared before some 40 County Medical Societies throughout the state, explaining the Commercial and Veterans' Programs and answering questions. Interest among the societies has been keen and has proved helpful to C.P.S.

C.P.S. is presently developing a quarterly bulletin to be sent to all physician members, which will give them further information about the organization.

SUMMARY

During the year California Physicians' Service has continued to make changes in personnel and procedures, to increase its efficiency. Both physician and beneficiary membership have increased tremendously. As evidenced by Mr. Herrick's report and that of McKinsey and Company, C.P.S. is in an excellent position to make 1947 an outstanding year in its development.

Respectfully submitted,

CHESTER L. COOLEY, *Secretary,*
Board of Trustees.

ANNUAL COUNTY MEDICAL SOCIETY REPORTS

FIRST DISTRICT

Imperial, Orange, Riverside, San Bernardino, and San Diego Counties.
Herbert A. Johnston, Anaheim, *Councilor.*

Orange County Medical Association

With the exception of about six doctors still in Military Service, all our doctors are now back from the Service. About 50 new doctors have come into the County during the past two years. All our meetings are well attended and excellent programs have been available.

A special assessment of $10 per member is to be used to help finance a Medical Library which is now in development at the Orange County Hospital.

LLEWELLYN E. WILSON, *Secretary.*

Riverside County Medical Association

An annual out of town meeting of the Riverside County Medical Association was held at Palm Springs. Dr. Chauncey Leobe was guest speaker at the 1946 meeting.

The second Monday of each month at 8 p.m. the Association meets at the Riverside Community Hospital. A scientific program is presented and is followed by a business session.

The Secretary of the Association publishes a monthly bulletin which is distributed the first week of each month.

CECIL J. LORD, *Secretary.*

San Bernardino County Medical Society

Resumé of the year 1946, finds a marked increase in the medical population of our county. We now have 188 practitioners and specialists as compared with 124 in 1943. The newer members are distributed rather evenly throughout the county. Thus outlying towns for the first time in their history now have their own physicians.

All but a few veterans have returned from the services and are now taking an active part in the Society, occupying all offices and maintaining a majority on the Board of Directors. In addition, the returning veterans have taken on the task of staffing the County Hospital, giving a much needed respite for those who maintained these services in addition to their busy practices during the war years.

THOMAS F. DEMPSEY, *Secretary.*

San Diego County Medical Society

With practically all its members home from the war, the San Diego County Medical Society has at last resumed its peacetime activities. We have received over 60 new members. Eleven have seen fit to retire and a few have resigned to seek fields afar.

Much has been accomplished during 1946. California Physicians' Service has opened a branch office with a capable staff that is gaining new members for us and also establishing better personal relationships with the medical members. A long felt need is being met.

In response to numerous requests a Cancer Trust Fund has been set up under Society auspices to receive funds to supplement the local anti-cancer campaign especially in the matter of affording treatment that might otherwise be unavailable. This, together with the establishment of a tumor clinic at Mercy Hospital, promises to be of great value to the community.

A new non-sectarian hospital under the auspices of an interested group of laymen is being organized and promises to add several hundred beds to relieve our present critical shortage of facilities.

The outstanding accomplishment of the year has been the securing of an Executive Secretary, Mr. K. C. Young. The Society has at last recognized that the job of guiding Society activities has become too big for part-time efforts on the part of the Secretary elected from the membership. New quarters are being established. Our *Bulletin* has been enlarged and put on a monthly basis. Much has already been accomplished as was seen during the recent political campaigns. We are looking forward to greater efficiency in the future and the Secretary is now relaxing and "letting George" do it.

W. H. Geistweit, Jr., *Secretary.*

SECOND DISTRICT

Los Angeles County.

Jay J. Crane, Los Angeles, *Councilor.*

Los Angeles County Medical Association

No report from the Los Angeles County Medical Association would be complete without mentioning the large acquisition of members during 1946. As of January 17, 1947, the membership numbered 4,130, with a waiting list of over 300. Of this number, 79 are listed as associate members and 229 as retired members. Because of this increase in membership, the indoctrination program for new members was put into effect and carried out so that new members could become better acquainted with local and state medical organizations, laws, ethics, economics, malpractice prophylaxis, and related subjects. Each applicant was also interviewed and his previous record scrutinized by various sub-committees. It is believed that the program is doing much to encourage new members to take an active part in the Association's work.

The Association is in sound financial condition. There is no indebtedness and a substantial increase in income is derived from the *Bulletin* and real estate holdings.

Due to the unusual growth of membership during the past four or five years, the present headquarters building at 1925 Wilshire Boulevard has become much too small. Plans have been drawn for an addition to the building, but construction cannot be started until labor and materials become available. A small temporary addition is being constructed to give additional space for the office force, but this will add only about 1,000 square feet.

The 75th anniversary of the Los Angeles County Medical Association was observed at a ball at the Biltmore Hotel in January, 1946. At this enjoyable occasion, many of our old officers made appropriate remarks. A history of our Association, written by Dr. E. T. Remmen, was presented to the members. This scholarly piece of work in monograph form will provide a future source book for historians of our society.

During the past year every effort was made to improve public relations, and this included a series of meetings with the Los Angeles Bar Association to acquaint our legal colleagues with some of the problems inherent in the practice of medicine and surgery. Through its various committees, the Association has taken part in the work of county institutions, health departments, medical schools, cancer prevention programs, and other community activities.

By appointment of the Board of Trustees, Dr. Louis J. Regan has been made a part-time Director of Medical Relations, an office for which he is eminently fitted. Mr. Stanley K. Cochems, executive secretary, has continued his radio talks on health topics and during the past year on Station KGFJ presented a program entitled, "If They Had Lived Today," which received wide attention, both locally and nationally.

Two new sections were established during the past year. One was a Section on General Practice, under the presidency of Dr. Eric Royston, which has over 500 members at this present writing. A Section on Allergy was recently authorized by the Council.

This year a directory is being published which will give a brief biographical sketch of each member, together with his photograph. This elaborate volume will be placed in the hands of each member without expense to the Association. In this manner it is expected that members will become better acquainted with their colleagues and know more about their medical education.

The group health and accident insurance was purchased by a large majority of the membership and proved thus far to be a satisfactory arrangment. Plans are under consideration for the possible establishment of a program of group life and retirement insurance.

During February of 1947 the "Annals of Western Medicine and Surgery" came off the press. This publication was authorized by the Council and Board of Trustees and is the first attempt at a scientific publication sponsored by the Association since the "Southern California Practitioner" of bygone days. The editorial board consists of executive officers of the Association and representatives of the various specialty sections.

A majority of the 900 veterans of military and naval service have resumed their practice in this area and it has been gratifying to note the quiet and efficient manner in which the great majority have re-established themselves. Originally, there was a fund of approximately $75,000 available for the purpose of making loans to those who needed money to re-establish themselves in practice. The local medical schools have offered postgraduate courses primarily for veterans, and these courses have been well received.

To build a home and have adequate financial reserves, the Physicians' Aid Association is seeking a fund of $500,000, of which $200,000 is already collected. This home is for the care of disabled and indigent physicians and their dependents, and such an activity is unique among medical societies.

The retiring officers of 1946 made an outstanding contribution to the welfare of organized medicine in Los Angeles County. Dr. Regan, not only as President of the Association but as its legal counselor, and Dr. Remmen, as Secretary-Treasurer, worked hard and accomplished much. The executive secretary, Mr. Cochems, was also outstanding as executive, writer and radio artist. The Council and Board of Trustees had an unusually heavy work-schedule, but fulfilled their duties to the satisfaction of most of the membership.

The whole Society again looks forward to entertaining the State convention this May.

C. L. Mulfinger, *Secretary.*

THIRD DISTRICT

Inyo-Mono, Kern, San Luis Obispo, Santa Barbara, and Ventura Counties.

Harry E. Henderson, Santa Barbara, *Councilor.*

Inyo-Mono County Medical Society

We rejoice with all our colleagues throughout the state at the attainment of a more just fee schedule for industrial accident cases. We feel that our willingness to pioneer in demanding proper fees for such cases was a definite aid to this revision. We found ourselves subject to revilings and calumnies by at least one vindictive insurance company (name upon request); but our firm belief that our cause was just, and that the doctors of the whole state would finally benefit by it, sustained us.

Our Society is still small in numbers. Our territory is large (265 miles from our most northerly to our most southerly doctors). But we have held our meetings monthly, with few exceptions. The dentists of our area, being geographically isolated from their own scientific societies, meet with us and hold office. Our active membership is now seven M.D.s and three D.D.S.s.

L. S. Bambauer, *Secretary.*

Kern County Medical Society

The Kern County Medical Society meets every third Tuesday except June, July and August at a dinner session at Stockdale Country Club. Dr. William H. Macdonald was president. Excellent speakers were obtained throughout the entire year.

In February, 1946, C.P.S. and Blue Cross held an enrollment campaign on a community basis, which was very successful. At the November meeting the Medical Society passed a resolution to the effect that members would no longer continue on the visiting staff at the Kern General Hospital until the present difficulties had been cleared up.

The following officers were elected for 1947: James T. Stanton, president; Eric F. Colby, president-elect; Frederick O. Wynia, secretary-treasurer; John K. Coker, William H. Macdonald replaced Keith McKee and Harry Lange on the Board of Directors; J. M. Nicholson succeeded himself; Delegates, C. I. Mead and Eric Colby; Alternates, J. E. Vaughan and Roderick Ogden.

In July of 1946 Dr. Francis J. Gundry died following an operation at Rochester, Minnesota. Dr. Gundry had been a member of this Society since coming to Bakersfield over 35 years ago and had contributed a great deal during his many active years. He was still in active practice at the time of his death.

FREDERICK O. WYNIA, *Secretary.*

San Luis Obispo County Medical Society

The San Luis Obispo County Medical Society with a membership of 33 members in 1946 held 11 meetings, nine of which were given over to scientific programs.

All of the seven members from this Society who left to enter the armed forces have received honorable discharges and reentered private practice. Four of them, however, have relocated outside this county.

Twelve physicians were admitted to membership in the San Luis Obipso County Medical Society in 1946, ten by application and two by transfer from other component county societies. At present there are five physicians in the county who are not members of the county Society. One of them has already filed his application for membership and two others have not established residency long enough to be eligible for membership but will file applications in the near future.

There were no deaths among the membership during the past year, but two members have retired from active practice.

During the past year the Society members have taken an active part on the staffs of the San Luis Obipso County General Hospital in San Luis Obispo as well as on the staff of the northern branch of County Hospital in Atascadero. The cooperation and relationship between the county governing bodies of the hospitals and the respective staffs has been most harmonious and pleasant.

The membership of the San Luis Obispo County Medical Society also held 100 per cent membership in the Public Health League of California and actively supported its program.

In addition to purchasing $500 in Defense Bonds the Society also purchased a new Baloptical Projection Lantern for use of the Society and hospital staff meetings.

Meetings are held the third Saturday of each month, except July, and are usually alternated between the city of San Luis Obispo and some other city in the county. Visiting or new physicians in the county are most welcome and urged to attend the meetings.

The officers for 1947 are: President, H. N. Cookson, M.D., Arroyo Grande; Vice-President, Robert O. Pearman, M.D., San Luis Obispo; Secretary-Treasurer, G. David Kelker, M.D., San Luis Obispo.

The Board of Directors: H. N. Cookson, M.D., Robert O. Pearman, M.D., Edison A. French, M.D., Richard T. Treadwell, M.D., Charles R. Kennedy, M.D.

G. DAVID KELKER, *Secretary.*

Santa Barbara County Medical Society

The Santa Barbara County Medical Society consists of 134 members. Practically all members have returned from the armed services and in addition many new members have arrived since 1944. The monthly meetings are held in Bissell Auditorium the second Monday of each month exclusive of July and August.

Our good fortune in procuring a number of learned speakers who presented scientific papers of lasting interest was instrumental in creating meetings of excellent attendance.

The following were some of the outstanding papers given throughout the year 1946:

February: A. E. Hardison, M.D., acting Medical Director of the American Red Cross, spoke on "Disaster Relief and Blood Procurement."

March: Julius Simon, M.D., of Los Angeles, spoke on "A Flexible Set-up for Evacuation of Injured Personnel at Bougainvilla and Guam." R. C. Surridge, M.D., of Los Angeles, presented a paper on "Surgical Care of War Wounds."

April: Albert Bower, M.D., discussed the subject of "Virus Pneumonia."

May: H. Sjaardema, Ph.D., and Carl W. Rand, M.D., of Los Angeles, spoke on the subject of "Electro-encephalography, Its Technical Aspects and As An Aid to Diagnosis."

June: The hospitality of the Santa Maria doctors was extended to the Society members. A paper was presented by Henry H. Searle, M.D., of the University of California, on "Diseases of the Thyroid and Their Surgical Management."

September: Alan Moritz, M.D., Professor of Legal Medicine at Harvard Law School and Pathologist to the State Department of Massachusetts, spoke on "Official Postmortem Investigation in the Interest of Public Safety." The Santa Barbara Bar Association also were guests at this meeting.

October: Francis McKeever, M.D., of Los Angeles, spoke on "Bone Tumors."

November: Lester M. Morrison, M.D., Assistant Professor of Medicine, and Harry A. Davis, M.D., Professor of Surgery at the College of Medical Evangelists, spoke on "Cirrhosis of the Liver" and "Surgery of the Liver."

December: James J. Short, M.D., Associate Professor of Medicine, Postgraduate School, College of Medical Evangelists, gave an interesting paper on "Obesity."

At the December meeting new officers elected were: President, Delbert H. McNamara, M.D.; President-Elect, Charles A. Preuss, M.D.; Vice-Presidents-at-Large, Lee H. Streaker, M.D., and Albert M. Beekler, M.D.; Secretary-Treasurer, Douglas F. McDowell, M.D.; Delegates, Harry C. De Vighne, M.D., Douglas F. McDowell, M.D., and Alfred B. Wilcox, M.D.; Alternates, H. Verrill Findlay, M.D., Delbert H. McNamara, M.D., and C. W. Henderson, M.D.; Council, Clifford Jones, M.D., J. Gary Campbell, M.D., and Lawrence E. Heiges, M.D.

The Society is now enjoying a membership the highest in its existence and it is our aim in the coming year to create an active interest in medical subjects and to obtain speakers who will stimulate this interest even further.

DOUGLAS F. MCDOWELL, *Secretary.*

Ventura County Medical Society

The Ventura County Medical Society had 59 active, and two retired members at the close of the year. All members who served with the armed forces have returned. In addition to the members who have returned from military service, there has been a net gain of 29 physicians and surgeons in the county.

Meetings are held on the second Tuesday of each month at the Ventura County Country Club at Saticoy. The meetings are preceded by a dinner, as this has been found to increase the average attendance. More stress has been placed on the organizational and economic phases of medical practice during the past year, with three meeting entirely devoted to the discussion of these problems.

The shortage of hospital beds and nurses continues, although the nursing situation is improving slightly. The cost of hospitalization has increased during the past year.

Although the Society cooperates with the allied professions, and engages in some local public relation activities, it is planned to increase these activities during the coming year.

A. A. MORRISON, *Secretary.*

FOURTH DISTRICT

Calaveras, Fresno, Kings, Madera, Mariposa, Merced, San Joaquin, Stanislaus, Tulare, and Tuolumne Counties.

Axcel E. Anderson, Fresno, *Counsellor.*

Fresno County Medical Society

During the year 1946 the Fresno County Medical Society held nine regular meetings. In addition a program was arranged with the Legal and Dental Associations of Fresno which is an annual event, highlighted by a speaker from one of the universities, following a day of golf.

At the regular meetings an attempt was made to have out-of-town guest speakers from different medical centers.

During the past year many physicians have returned from the services and many new doctors have started to practice in Fresno County. Office space and available hospital facilities remain very scarce.

The County Society is adopting a Health and Accident

Plan as a group policy for members of the County Medical Society.

W. N. KNUDSEN, *Secretary.*

Kings County Medical Society

During the past year eight meetings of the Kings County Medical Society were held. A fine spirit of cooperation among the medical profession has existed and considerable interest has been shown in recent medical work.

WILLIAM F. CHAMLEE, *Secretary.*

Merced-Mariposa Counties Medical Society

During the past year, business meetings in conjunction with dinners proved to be enjoyable social functions as well as necessary business sessions.

It was voted by the members that the Society furnish the staff for the General Hospital, and this practice has worked out very successfully to the satisfaction of all concerned.

Among other local matters of importance, was the adoption of a standard fee schedule for medical and surgical services. This act by the group was an incentive toward closer cooperation and better understanding.

At the close of the year, 25 active members were enrolled in our Society.

C. F. FITZ GIBBON, *Secretary.*

San Joaquin County Medical Society

The year 1946 has been remarkable in the San Joaquin County Medical Society for the return of many of our colleagues from service with the armed forces. It has been possible to resume activities of the Society on a more normal basis than for the past five years.

Ten meetings of the Society were held; two in the form of dinners to honor distinguished colleagues, Doctor Margaret Smythe on February 7, and Doctor Dewey Powell on December 5. The other meetings were as follows: January 2—"War Experiences," Dr. J. O. Eccleston and Dr. Marion Green; March 7—"Traumatic Chest Injuries in Civilian Practice," Dr. Paul Sampson; April 4—"Encephalitis," Dr. E. L. Lennette; May 2—"Specific Treatment of Infections," Dr. Jack Brown; June 6—General relaxation meeting, Dr. George Kress and Dr. John Cline; September 5—"Diabetes," Dr. H. Clair Shepardson; October 3—California Physicians' Service, Dr. Frank Doughty and Mr. John Ballantyne; November 7—"Electric Shock Therapy in Psychiatry," Dr. R. B. Toller and staff.

Membership:		
Active members January 1, 1946	77	
Returned from service	25	
Reinstated	2	
New members	8	
Transferred in	5	117
Transferred out	4	
Died	0	
Retired	2	—6
Total membership December 31, 1946		111

H. D. CHOPE, *Secretary.*

Stanislaus County Medical Society

Regular scientific and business meetings were held by the Stanislaus County Medical Society during the year 1946. Members actively participated in the programs.

Some of the members who have been serving with the armed forces have returned to active practice in the county and many new physicians have taken up residence here during the past year. The death of one member, J. A. Porter, of Modesto occurred in 1946.

J. LYLE SPELMANN, *Secretary.*

Tulare County Medical Society

The Tulare County Medical Society has held regular monthly meetings throughout 1946, with Dr. George C. Keiper of Visalia, California, as its president for the year. Guest speakers from various parts of the state added valuable and instructive discussions to the scientific programs.

The past year has seen a steady and healthy increase in the number of active members attending the monthly meetings. At the present writing all but one of the members who had been in military service have resumed their private practice.

At the December meeting election of officers for the coming year was held, and the following officers were elected: Dr. Frank Guido, Visalia, President; Dr. W. B. Parkinson, Porterville, Vice-President; Dr. Debora Pineles, Visalia, Secretary-Treasurer.

DEBORA PINELES, *Secretary.*

FIFTH DISTRICT

Monterey, San Benito, San Mateo, Santa Clara, and Santa Cruz Counties.

R. Stanley Kneeshaw, San Jose, *Councilor.*

Monterey County Medical Society

Regular meetings of the Monterey County Medical Society were held the first Thursday of each month (except June, July and August) and meetings were alternately held in Salinas and Monterey.

The roster of the Society now includes 75 members. The Society mourns the loss of five of its members during the year. These include the secretary, Dr. S. A. Carnazzo of Monterey, California; Dr. E. W. Bingaman and Dr. R. E. Pray of Salinas, California; Dr. William Gratiot of Monterey, California, and Dr. R. A. Wiffen who died while in military service. The following were elected to membership: Dr. D. Stofer, Dr. M. Fong, Dr. E. E. Simard, Dr. F. E. Williams, Dr. Yvonne Champreux, Dr. T. L. MaGee, Dr. A. Nunes, Dr. J. R. Fassett, Dr. D. A. Cleve, and Dr. S. Turner. Dr. M. L. Carter, Dr. R. W. Schock, Dr. E. E. Wadsworth, Dr. L. M. Blount, and Dr. J. C. Siemens, transferred from the Society.

Guest speakers for the meetings included Dr. William B. Neff, the Honorable Fred Kraft, the Honorable Fred Emlay, Dr. R. S. Kneeshaw, Dr. E. A. Shaw, Dr. David A. Wood, Dr. A. E. Larson, Dr. Gilbert Thomas, Dr. Mary E. Mathes, Dr. Helen B. Weyrach, Dr. David A. Rytand, and Dr. Vincent Richards. Subjects presented and discussed were state medicine, health, legislation, C.P.S., anesthesia, poliomyelitis, hepatitis, infections of the kidney, intracranial lesions, x-ray diagnosis, nephrosis, and surgical conditions of the chest.

F. HILTON SMITH, *Secretary.*

San Benito County Medical Society

The San Benito County Medical Society has six members in active service. Meetings are held at irregular intervals on the call of the president. No changes in membership occurred during 1946.

JOHN J. HARUFF, *Secretary.*

San Mateo County Medical Society

The present membership of the San Mateo County Medical Society consists of 131 active members, eight associate members and two members still not returned since entering service. During the year, 31 new members were added to the Society, and they are situated well up and down the Peninsula. We jokingly say that "the soup is getting thinner," and at the moment there is no outstanding need for many more medicos.

Our lack of sufficient hospital beds is a problem, and we have been using the Mills Annex with 20 beds, thanks to the Board of Supervisors.

We have an active hospital committee that is investigating plans for a hospital district. The Redwood City area is a step ahead with a hospital district setup in a nebulous state.

ALBERT G. MILLER, *Secretary.*

Santa Clara County Medical Society

With gratification we can clearly note that in 1946 we have, at the county level, inaugurated a definite, concrete, constructive and aggressive program of Medical Public Relations. On May 1, the Society, as its first major step, established a full-time business office, staffed by Mr. Joseph F. Donovan, an experienced and qualified public relations man. We thus became the fourth local County Society in California to have made such a forward step.

Our second major step was to join with the rest of our seven neighboring County Societies in the Bay Area to form the San Francisco Bay Area Medical Societies Coordinating Committee. Specifically, this means that through local County Societies operating a Bureau of Medical Economics we intend to mend some of the broken fences and to stop breaking more fences in the field of doctor-patient economic relations. By the use of a new, modern,

account recovery service, controlled and operated solely by doctors, we believe that we can go a long way in building better relations for medicine at its most critical point of contact with the public.

Our Bureau will soon inaugurate a self-service system of office accounting for doctors, as well as a patient credit reporting service for all of our members.

Among several of the Society's other activities dedicated to improving the public welfare, we did, after no small endeavor, begin operation, on October 31, in conjunction with the local chapter of the Red Cross, our Civilian Blood Donor Center. In our first five weeks 207 pints have been drawn, and 16 different members of our Society have served as volunteer doctors in attendance.

Our Tumor Clinic is now well organized and is satisfactorily functioning. We are now able to note a definite increase in the number of cancer cases detected. By improving our cancer detection methods we can be assured that more patients will come before doctors for treatment at early stages.

This report must include mention of the fact that your Society now has a Hospital Correlating Committee which was appointed in November. Substantial progress has already been made and as soon as the Society is at liberty to do so it will disclose important, hopeful revelations on this project.

A committee has also been at work on the project of finding a suitable building or converted home that might serve as a Medical Center "headquarters." There is much to be gained from many aspects by centralizing the headquarters for such activities as the TB Association, the Cancer Society, the Visiting Nurses Association and our own Medical Society offices. We understand that some of these and similar organizations have already expressed their favor of this proposal. The combined savings in rent alone, as well as the convenience of close proximity of these mutually-affiliated groups is an attraction in itself.

For the benefit of our own members the Society this year inaugurated a group sickness and accident insurance plan which not only benefited policy holders through broader coverage as compared with ordinary similar policies, but by cooperative group action, netted Society members an aggregate cash savings of over $6,000 in premium payments. Other accomplishments of nominal interest included editorial improvements in our monthly *Bulletin*, the publication of a complete membership roster, the establishment of an announcement-card mailing service, two advertisements in three county papers announcing the return of our servicemen doctors, aid in locating and securing office space for new doctors, and other items of personal service.

The better to acquaint our new members with local matters of medical organization, medical public relations, ethics, etc., a plan has been formed for a membership indoctrination course which will begin early next year.

Membership in the Society now stands at 255, and there are 34 applications for membership still pending. Attendance at our monthly meetings has averaged better than 125 members.

In Santa Clara County we believe the Medical Society has demonstrated that a progressive program can be developed if men will work at it.

LESLIE B. MAGOON, *Secretary.*

Santa Cruz County Medical Society

Under the able leadership of President Ruth Frary of Watsonville, the Society had a very successful year. Nine meetings were held. In January, Doctor Peter Cohen of the University of California Medical School discussed the "Rh Factor." The February meeting was a joint meeting with the Mental Hygiene Committee of Santa Cruz County. The speaker was Doctor Arthur Lubin of Stanford Medical School who presented a paper on "Epilepsy." In March the Society was addressed by Doctor Benioff of the San Francisco Hospital Staff on the subject "Diagnostic Problems in Pulmonary Tuberculosis." In April the speaker was Doctor Neff of the Stanford Medical School who presented a paper on "Dynamics of Respiration." In May Doctor Edward B. Shaw of San Francisco addressed the Society on the subject "Modern Methods of Treatment in Infectious Diseases of Childhood." Doctor Roy Coon of Stanford Medical School was the speaker in September and the subject, "Surgery of the Traumatized Abdomen."

The October meeting was a joint meeting with the Monterey County Medical Society. The speakers were Doctor Mary Mathes of Stanford Medical School whose subject was "Diagnosis of Intracranial Lesions in Childhood," and Doctor Helen Weyrauch of San Francisco whose subject was "Diagnosis of Intraabdominal Lesions by Scout Film." The November meeting was addressed by Doctor Norman Freeman of San Francisco on the subject "Peripheral Vascular Diseases."

The annual business meeting was held in December and officers for 1947 elected. The speaker of the evening was Doctor Richard Koch of the San Francisco Department of Health who discussed the "Treatment of Syphilis."

We are happy to report that, at the close of 1946, all of our military members had returned and resumed private practice.

SAMUEL B. RANDALL, *Secretary.*

SIXTH DISTRICT

San Francisco County.
Edwin L. Bruck, San Francisco, *Councilor.*

San Francisco County Medical Society

Nineteen forty-six was a year of continued growth and progress for the San Francisco County Medical Society. Membership reached an all-time record of 1,355 members.

Among the more important developments was San Francisco's participation in the Coordinating Committee of Bay Region Medical Societies. This Committee was formed to consider problems on a regional rather than a county basis in order that the activities of all might be integrated to the best interests of the medical profession. As a result of this Committee the activities of the Bureau of Medical Economics were expanded from Alameda County to San Francisco and Santa Clara counties. This is considered one of the most significant steps ever taken by the Society and one that will be of great value in improving public relations.

Another constructive move accomplished during the year was the formation of a new bureau through which any newspaper reporters' queries about scientific matters will be channeled through the Executive Secretary, who in turn will contact the doctor best qualified to respond. Formation of this bureau has been acclaimed by the newspapers and has received favorable comment in national medical publications.

Steps were taken during the year to improve the "Bulletin." The number of pages increased about 25 per cent and advertising gained correspondingly. The format and cover were improved with the January issue and further improvements will be made in 1947.

The Irwin Memorial Blood Bank continued to grow. The first year the Bank was receiving 200 to 250 donors a month and distributing 100 to 150 units of whole blood. Last year the Bank averaged 1,600 donors monthly and distributed 1,200 to 1,400 units of blood each month.

Due to the needs of the community, the Blood Bank's production reached an all-time high last year. One of the Bank's most gratifying achievements was the reduction in the whole blood service fee from $7.50 to $6.00, effective January 1, 1947. The Bank is operating efficiently and rendering great service. Much credit for its success is due physicians serving on the Blood Bank Commission.

This Society had the pleasure and privilege of acting as host to the A.M.A. when it convened last July 1-5, inclusive, in San Francisco. The various committees functioned smoothly and effectively under the chairmanship of John W. Cline. Many county societies contributed to the entertainment fund and the membership of the San Francisco County Society takes this opportunity of thanking them again for their generous cooperation which made the convention one of the outstanding meetings in the history of the Association.

The Society continued to make every effort to improve the position of the professional staff members of the Health Service System. It initiated a request for a 15 per cent increase in the fee schedule, and when this request was denied last summer by the H.S.S. Directors, the Board conducted a survey of opinion looking toward a renewal of the request. The Society is also considering appropriate action if the request is again denied.

The Society has continued to give support and assistance to C.P.S. New members have been given all the data on the organization and invited to join. The Society noted with pleasure the spectacular increase in beneficiary members and the start of the educational program on a statewide basis.

The Society has continued to give every assistance to the Woman's Auxiliary and is deeply gratified that membership in this organization also reached new high levels last year.

Following a wartime lapse in the scientific programs, section meetings were resumed on a full-scale basis this year. Attendance was good. The scientific and general

meetings attracted a total of 1,530 members throughout the year. One of the most significant developments was the formation of a General Practice Section.

Problems of the returning service doctors were solved as far as possible by the hard-working committees which endeavored to secure hospital facilities, office space and the lack of listings in the telephone book. The Society announced the names of returned service doctors in attractive newspaper advertisements and also published a roster of names, addresses, telephone numbers and specialties of returnees which were distributed to all members of the Society. Costs were paid by the Special Service Fund. Other activities included obtaining part-time jobs and securing post-graduate training for others.

The Special Service Fund, accumulated by the members of this Society for the benefit of veteran doctors, was put to good use in 1946. During the year, loans and gifts were authorized amounting to $13,700. Eighty-seven veteran members had their dues paid at a cost of $8,000. Balance of the fund at the year's end was over $40,000.

ROBERTSON WARD, *Secretary.*

SEVENTH DISTRICT

Alameda and Contra Costa Counties.
Lloyd E. Kindall, Oakland, *Councilor.*

Alameda County Medical Association

Nineteen forty-six was an eventful year for the Alameda County Medical Association. A complete report on our progress during the past year would require a volume. But here are a few of the highlights.

Of first importance—and the gauge and inspiration for everything else—has been the development of our public relations program. This program is firmly established upon the premise that the level of the security and prosperity that is to be enjoyed by the practitioners of medicine will be determined by the degree to which they individually and collectively translate into practice the public relations philosophy of the Association: *the interpretation and direction of every act in terms of the ultimate public good.*

The recently established Bureau of Medical Economics has been developed to a point where it can back up the Association's advertised guarantee of medical care for everyone, regardless of the patients' ability or inability to pay. The services of the Bureau are being constantly expanded and improved. These services are auditing, accounting, collections, credit reporting, medical social service screening, account financing, tax advice, bookkeeping, billing, and postpayment plans.

A group malpractice insurance program has been developed, chief features of which are a preventive program, a retrospective rating plan, the broadest coverage yet written into a malpractice insurance contract, and a premium rate that is from 25 per cent to 65 per cent less than the prevailing California rates. The savings to members during the next year will amount to more than the total of their Association dues. Within five years this saving can be more than doubled. This project, alone, therefore pays the cost of our entire new A.C.M.A. program.

During 1946 the Association took over the operation of the Alta Bates Eastbay Blood Bank. A real estate man, employed full time, assisted returning service men in finding offices. Loans were made to veteran members from our Postwar Benefit Fund. The nation's first two-year sickness disability group health and accident insurance plan was developed by the Association and subscribed by members. The Constitution and By-Laws were revised along more democratic lines. Branches of the Association were organized. A General Practitioners Association was organized, independently of the A.C.M.A. Standards for the improvement of the professional work in Eastbay hospitals were developed and recommended. *The Bulletin* of the Association grew to 64 pages, with more than $1,300 per month in advertising. The Association exhibited its growing power for good by summarily squashing a political move to oust a competent, well-trained municipal public health official. The Association's relations with California Physicians' Service were improved. Other county societies throughout the state were assisted in launching comprehensive programs along the lines of the Alameda plan. *A 137-page History of the Alameda County Medical Association* was written by Dr. Milton Shutes and published by the Association with funds contributed by Mrs. Frank Mackinson. Many new books and periodicals were added to our library. A Bay Area Coordinating Committee was organized, and offices of the Bureau of Medical Economics were opened in San Francisco and San Jose. More than 12,000 telephone calls per month went through the busy A.C.M.A. switchboard (which does not include doctors' telephone secretarial service). The membership of the Association increased to 856. Members addressed, and the Auxiliary prepared and mailed, more than 90,000 letters before the primaries and general elections. Advertisements were placed in each of the local daily papers explaining the A.C.M.A. unconditional guarantee of needed medical care for everyone, and the first skirmish of the 1947 battle against compulsory health insurance resulted from our inability to find a single person in Alameda County—the Governor's home county—who needed medical care the patient couldn't get because he couldn't pay a doctor.

Credit for our accomplishments and rapid progress of our Association toward its ultimate goal, of which the above presents only highlights, goes to no single individual, but rather to the team play of nearly all of our members, our officers, our committees, and a hard-working A.C.M.A. Headquarters Staff, which has grown to 17 full-time lay employees. It is significant that nowhere in America will be found better feeling and closer cooperation between physicians than has been observed in Alameda County during the past year.

It is my sincere belief that the A.C.M.A. report for next year can start with the statement: "Alameda County now has in full and successful operation what its officers and members believe to be a model county medical society public relations program."

DOROTHY M. ALLEN, *Secretary.*

Contra Costa County Medical Society

The year 1946 has been an unusually active one for the Contra Costa County Medical Society. Of major interest was the participation in the fight against socialized medicine. In addition to the activities common to all county medical societies, Contra Costa County joined with six other Bay Area counties in forming a coordinating group, whose responsibility it is to unify the efforts of the various counties in combating socialized medicine, and to help to establish a uniform front in public relations.

Contra Costa County wishes to pay a special tribute to Rollen Waterson, Lay Secretary of Alameda County, for his help in developing improved collection methods and in obtaining lower rates in health and accident and malpractice insurance.

County Society dues were raised from $5 to $10.

Our changes in membership included two departures and twelve new members, a net gain of ten members.

H. O. NEUFELD, *Secretary.*

EIGHTH DISTRICT

Alpine, Amador, Butte, Colusa, Eldorado, Glenn, Lassen, Modoc, Nevada, Placer, Plumas, Sacramento, Shasta, Sierra, Sutter, Tehama, Yolo, and Yuba Counties.

Frank A. MacDonald, *Councilor.*

Butte-Glenn Medical Society

The Butte-Glenn Medical Society continued to function during the war years as usual. In the Chico area, which normally had about 27 members, the number dwindled to 12. Since the cessation of hostilities our membership is now back to its original 27. Our total membership is well over 40.

During the past year we have held our regular monthly meetings; some addressed by those who had been overseas and by speakers from Sacramento and San Francisco. Our meetings, which are very well attended, are preceded by a dinner, at which the wives of the members are in attendance, after which the Women's Auxiliary holds separate meetings.

All committees of the Society are doing their part and the situation in the Society and among the members in general is all that one can deserve.

J. O. CHIAPELLA, *Secretary.*

Tehama County Medical Society

The Tehama County Medical Society at its regular meeting the evening of January 15, 1947, elected the following officers for the year 1947: J. L. Faulkner, M.D., President; O. T. Wood, M.D., Vice-President; A. H. Meuser, M.D., Secretary and Treasurer. Doctor O. T. Wood was elected delegate and Doctor E. R. Wilson, alternate. Doctor Roderick Thompson has returned from service in the Navy and has resumed active practice.

A. H. MEUSER, *Secretary.*

Yuba-Sutter-Colusa Counties Medical Society

The Yuba-Sutter-Colusa County Medical Society performed its functions in streamlined fashion throughout 1946. Unity and oneness of purpose were outstanding throughout the year. The smoothness with which the various committee chairmen conducted the affairs was most gratifying to the officers. The entire program of the Society was so conducted that no special meetings had to be called at any time. Eight regular monthly meetings were held, meetings being suspended June to September inclusive.

Each meeting program was streamlined to omit all unnecessary business, in order to devote as much time as possible to the scientific side of medicine and surgery. Dr. John W. Linstrum served as program chairman, and is to be complimented upon the fine selection of speakers that appeared before the Society.

Dr. Frank B. Reardan of Sacramento spoke on "Some Aspects of Heart Failure." Dr. C. A. Scherer, Public Health officer, conducted a symposium on Public Health Problems. Dr. Adolph Ogaard gave a paper on "Dissecting Aneurysma," illustrating his lecture with lantern slides. Doctor Frank Lee discussed "Advances in Psychosomatic Medicine." Doctor John Lawson, spoke on "Radium and X-ray Therapy of Superficial Lesions." Doctor A. M. Blumenfeld gave a most interesting and instructive illustrated talk on "Tumors of the Breast."

The guest speaker for the final meeting of the year, was the Councilor for the Eighth District. Dr. Frank McDonald. He presented the political side of medical practice, informing the Society what has been taking place in both state and federal legislative houses.

During the year an attempt, by private hospital management, was made to have the Society form a hospital staff. This has not been consummated. Note is made that hospital beds have been at a premium throughout the year.

A clipping bureau was instituted to accumulate articles of general medical interest. The files are available to all physicians. The subjects are cross indexed.

There has been a spirit of fine cooperation between the Society and the local Red Cross, and Tuberculosis Associations.

The members of the Camp Fire Girls, Boy Scouts, and Y.M.C.A. were given free physical examinations preceding their attending summer camps.

During the month of October the Public Relations Committee, headed by Dr. Stanley Parkinson, did a nice piece of work in the political campaign, first polling each candidate concerned as to his policies and attitude toward socialized medicine, and followed through to see practically all candidates which the Medical Society sponsored elected to office.

During the year the fee schedule of the Society was raised approximately 33⅓ per cent of minimum fees, and a new fee schedule booklet was printed for distribution to the membership.

During November a large one-day advertisement was displayed in each of the three local newspapers, welcoming back to private practice the returning veteran physicians: Colonel Gransville Delamere, Colonel Anthony M. Fratis, Lt. Col. Robert L. Hamilton, Lt. Col. Charles B. Kimmel, Lt. Commander Neal M. Loomis, Captain Benjamin Miller, Major Stanley R. Parkinson, Captain Phillip Thunen, Major Leon M. Swift.

During the year the following physicians were elected to Society membership: C. A. Scherer, Harold Simons, Walter Schmidt, Paul C. Cress. Robert Hodgins was elected to membership by certificate of transfer from San Bernardino County. Dr. Lorrin Denny on transfer from San Diego County.

The highlight of the year was the annual banquet, which has been held for many years at the time of the November meeting, at the Riverside Hotel in Colusa. Almost the entire membership was in attendance.

After considerable planning and communicating with various General Practitioners' sections, following the American Medical Association meeting in San Francisco in July, a General Practitioners' Section of the County Medical Society was authorized and organized in October, 1946. The chairman of the section is Dr. Stanley R. Parkinson and the Secretary is Dr. Anthony Fratis. The meetings of the section are held the first Wednesday of each month, and it is the policy of the section to have papers presented by its members for mutual benefit and to guard the sanctity of the right to be general practitioners.

The newly elected officers for 1947 are: President, John W. Scott, M.D., Colusa; Vice-President, Ermorine Edwards, M.D., Marysville; Secretary-Treasurer, Leon M. Swift, M.D., Marysville.

It is the consensus of opinion that we have completed a most successful year of Society work in spite of numerous handicaps.

LEON M. SWIFT, *Secretary.*

Sacramento Society for Medical Improvement

The Sacramento Society for Medical Improvement meets at 8:30 p.m. on the third Tuesday of each month in the auditorium of the Nurses' Home at Mercy Hospital, 40th and Jay Streets. No meetings are held during the vacation months of July and August. Programs are arranged by a committee, and the December meeting is devoted to Society business and the election of officers for the ensuing year. No bulletin is published by the Society, but the programs of the meetings are announced on printed notices which are sent to all local physicians and other interested physicians in nearby communities. Notices of the monthly meetings are also sent to physicians in military service at the adjacent army posts. The following speakers and programs were presented during the year:

January 15—Dr. Chester Cooley, Mr. William Bowman and Mr. Clem Whittaker discussed California Physicians' Service.

February 19—Symposium on War Medicine and Surgery by members of the 51st Evacuation Hospital.

March 15—Annual Banquet.

April 16—Conclusion of Symposium on War Medicine and Surgery.

May 21—Symposium on urological diseases by Drs. Curtis McDonnell, Max Isoard, Edward Beach, Carl Burkland, Hugh Simmons and Nathan Hale.

June 18—Discussion of State Vocational Rehabilitation Program by Mr. H. D. Hicker.

September 17—Dr. Harold Downing of Fresno discussed "Operative Treatment of Recurrent Dislocation of the Shoulder."

October 15—Dr. Stone and Dr. B. V. A. Low-Beer discussed "The Use of Radioactive Isotopes in Medicine."

November 19—Mr. Rollen Waterson, Executive Secretary of Alameda County Medical Society, talked on the workings of his organization. Dr. David Wood of Stanford University discussed the work of Cancer Clinics. Mr. John Hunton, Mr. Clem Whittaker, Dr. Dwight Murray and Dr. John Cline discussed the Voluntary Health Insurance Program.

December 17—Annual Business Meeting.

The Society has a membership of 187, as of January 1, 1947. There are in addition four retired members and one honorary member.

Drs. Henry L. Saverien and E. C. Turner died during 1946.

EDMUND E. SIMPSON, *Secretary.*

Shasta-Trinity County Medical Society

The Shasta-Trinity County Medical Society has an active membership of 20. During the year 1946 two members were released from the armed services and have returned to the practice of medicine in the county.

The Shasta-Trinity County Medical Society meets regularly on the second Monday of each month, except during the summer months of June, July and August.

JULIUS M. KEHOE, *Secretary.*

Yolo County Medical Society

The Yolo County Medical Society has been able to obtain excellent speakers during the past year. Dr. Arthur Grollman of Southwestern Medical College addressed the Society at our December meeting. His lecture on Carbohydrate Metabolism was most educational.

We continue to have an acute nursing shortage which has caused many hospital beds to be vacant. The Board of Supervisors has deemed it necessary to open the County Hospital to private patients until sufficient bed space can be provided elsewhere. The Society is actively interested in the Cancer Program and has approved of the formation of a Tumor Center at the Woodland Clinic. This center will begin operation after official approval by the proper state authorities.

EMERY LEIVERS, *Secretary.*

Placer-Nevada-Sierra Counties Medical Society

The Placer-Nevada-Sierra County Medical Society held no formal meetings during the year.

The membership of the Society is now 30 paying members and one life member.

VERNON W. PADGETT, *Secretary.*

NINTH DISTRICT

Del Norte, Humboldt, Lake, Marin, Mendocino, Napa, Siskiyou, Solano, Somona, and Trinity Counties.
John W. Green, Vallejo, *Councilor.*

Humboldt County Medical Society

Under the able leadership of Walter Dolfini, M.D., the Humboldt County Medical Society had a very successful year in 1946.

The year saw the return to private practice of all the men from the armed forces. We welcomed ten new members into the Society.

In 1946 a full-time county health officer was obtained and the organization of the Public Health Department for the county is under way.

WAYNE P. MCKEE, *Secretary.*

Marin County Medical Society

The Marin County Medical Society had a very successful year during 1946. The membership has increased to 61 members. Two members left the county and five new members were accepted by transfers from other societies. Four doctors have become members by application on credentials. Two of our members have not returned from military service as yet. One is known to be out of the service and in school; the other has not reported.

Ten professional meetings have been held during the year and all meetings have been well attended. Good fellowship continues to exist among all the members.

All the doctors in the county appear to be busy in general medicine and surgery, also the specialties. The nursing situation still remains unsatisfactory, but will gradually improve. The hospital situation is even worse than during wartime. The two hospitals in this county are inadequate to take care of the bed situation. A new hospital to be built by a bond issue is contemplated and the committee appointed is busy working out fundamental details. The obstetrical situation still is well in hand, although many of the mothers go home on the fourth or fifth day, none being delivered in the homes.

CARL W. CLARK, *Secretary.*

Solano County Medical Society

A review of the activities of this Society for 1946 follows:

On January 8, 1946, a business meeting was held with discussion of problems concerning prepaid medical plans and disciplinary action by the Society concerning the unethical conduct of one of the members. Standing committees were announced by the president, and plans for a two-day surgical symposium circulated.

In February the second meeting of the year was held to discuss prepaid medical care programs, veterans' care program and the progress of the California Physicians' Service commercial plan in Vallejo.

The March 12, 1946, meeting was a scientific program by Dr. John Miller of Stanford University and Dr. E. Shaw of Childrens and University of California Hospital. The usual busines meeting convened.

A dinner meeting was held in March, 1946, at the Ryder Street Cafeteria. A scientific program by Dr. S. Sherrick, Dr. Carl Mauser and Dr. Leon Woods on the subject of obstetrical difficulties.

The April 16, 1946, meeting consisted of a business meeting, in which the subject of the A.M.A. convention was discussed.

On May 14, 1946, Dr. Madeley made a report of the recent C.M.A. meeting before the House of Delegates. A plan for employing an executive secretary for four counties, Marin, Napa, Sonoma and Solano was discussed.

On June 16, 1946, the forthcoming tri-county medical meeting was discussed at a special meeting.

On July 25, 1946, a meeting was held to discuss the fate of the Vallejo Community Hospital, of which financial support will be entirely in the hands of the local community, as federal funds would no longer be available after January 1.

On August 27, 1946, a meeting was held and the principle business was discussion of the Bureau of Medicine Economics by Mr. Roland Waterson, executive secretary of the Alameda County Medical Society.

At the September meeting, Dr. Larsen, Medical Director of C.P.S., outlined the status of the C.P.S.-Veterans' Administration program.

At the November, 1946, meeting officers were elected for the coming year: H. Randall Madeley, M.D., President; Felix Rossi, M.D., Vice-President; Charles H. Widenmann, M.D., Secretary and Treasurer, and Dr. H. Randall Madeley, delegate to C.M.A. New business was consideration of Physicians' Exchange plans for participation by doctors in ownership and management of the Vallejo General Hospital.

A special meeting was held December 14, 1946, for discussion of the hospital situation in Vallejo.

CHARLES H. WIDENMANN, *Secretary.*

Mendocino-Lake Counties Medical Society

At the annual meeting of the Mendocino-Lake Counties Medical Society for the purpose of election of officers and reports of the various committees, J. E. Gardner was re-elected president and E. C. Bennett, Secretary-Treasurer. L. K. VanAllen was again chosen as delegate to the state convention and Walter Rapaport elected his alternate.

Our Society consists of 26 members, of whom 11 served in the military or armed forces. Most of the others served in the Selective Service. We take pardonable pride in their promotions and citations. One of our members, Walter Rapaport, received the Medal of Commendation.

E. C. BENNETT, *Secretary.*

Sonoma County Medical Society

The total membership of the Sonoma County Medical Society at present is 67, with one member still in the armed service. Fourteen members were lost to the Society during 1946, as follows: Death of M. F. Clark, M.D., one member retired, six transferred to other Societies, and six resigning from membership. Six new members were added during the year. Seventeen of our members were serving in the armed forces during 1946.

Ten meetings were held. The June meeting was held at the Sonoma State Home, the Society being dinner guests of Dr. F. O. Butler, following golf in the afternoon.

The September meeting was a joint meeting of the Sonoma County Medical Society and the Ladies' Auxiliary, 93 persons attending. Ten new physicians and their wives who have come to Sonoma County during the past 12 months were introduced at this time. The program consisted of the following: An interesting report of the customs and practice of medicine in Alaska, by Noble Dick, M.D., who has spent several years in that region; Dr. J. Hubert Sturges showed interesting color films of medical work and other things of interest in South Africa, where he had previously practiced.

Dr. Frank P. Swire, was lost to us in a fatal airplane accident on Christmas Day.

RAIMOND F. CLARY, *Secretary.*

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Public Relations of a State Medical Society*

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President-Elect of the California Medical Association

IT is difficult to find an adequate definition of "Public Relations." When applied to any segment of society, the term obviously refers to the estimate of the public concerning that particular group. If that opinion be good, the group may be said to enjoy "good public relations" and if the opinion be poor, the converse is true. The terms "good" and "bad" are relative and not absolute. It follows, therefore, that things can be done which may result in the improvement or deterioration of the relationship of a particular group to the public.

There is little or no difficulty in presenting the scientific achievements of medicine to the people. News sources are avid for this information. The tendency is for writers in lay publications to dramatize and exaggerate such news beyond its proper value.

The function of the medical profession in our society is to provide adequate medical care of high standard within the economic reach of the bulk of our people. The profession, itself, must be the judge of the standard and adequacy of care. No other group is equipped with the knowledge and experience to determine these points. One frequently encounters efforts on the part of laymen to set down rules and regulations concerning these items. The theoretical and emotional background of these opinions is apparent and sometimes would be amusing, were it not for the serious consequences involved.

It is probable, however, that the public will have a considerable influence upon the decision as to what constitutes adequacy of medical care.

The situation is somewhat different when it comes to the determination of what constitutes provision of such care within the economic capacity of the public. Here the people have a right to participate in the decision and, whether we wish it or not, probably will have the ultimately dominant voice.

It is apparent that public opinion will be a vital factor in shaping the future pattern of medical care and the method of its distribution. It is, therefore, necessary that the public be well informed so that its attitude toward medicine and medical care will be intelligent and based upon fact instead of emotion and prejudice.

This is the basis upon which any effective public relations program must be built. We must further realize that the technical field of public relations is one with which the medical profession is not familiar. We should seek the advice and services of experts in this endeavor, just as our patients come to us for medical care.

About three years ago, the Council of the California Medical Association belatedly reached this conclusion. Earlier, abortive efforts had been made in this direction and the experience had not been pleasant. It was evident that we needed the advice of someone who possessed recognized abilities in this sphere.

We, therefore, sought the advice of one of the largest and best known advertising agencies in the country. The approach of this organization to our problem was remarkably similar to that which we utilize in solving the medical problems of our patients. In both fields effective therapy depends upon accurate diagnosis. In this instance, the diagnostic procedure consisted of a public opinion survey. This was conducted according to standard methods and was designed to ascertain the attitude of the public toward the medical profession and the individual physician.

The survey showed that the public held a rather high opinion of its doctors as individuals and felt

* Delivered by invitation before the Mid-Winter Clinical Sessions of the Colorado Medical Society, Denver, February 19, 1947.

that they did a good job. The estimate of the profession as a whole was not as high. The principal complaint was against the costs of medical care. There was an expressed desire for prepaid medical care and the preference was for voluntary rather than compulsory insurance.

A correlated survey of the attitude of the physicians of the State showed that there was very little enthusiasm for, and in some instances open opposition to California Physicians' Service, our own plan for prepaid medical care. It was also demonstrated that the individual physician had very little knowledge of the problems confronting his profession.

We have found it extremely difficult to keep the average physician adequately informed. In many instances he does not read his state journal or at least that part which has to do with medical association activities and the general welfare of the profession. He is more inclined to read a short, concise bulletin, particularly if it has glaring headlines. He can be reached through hospital staff meetings more easily than in any other way.

PHYSICIANS MORE AWARE OF PROBLEM

There is fortunately an increasing proportion of the profession which is alive to our problems. Complete unity is unattainable but there is a growing realization that the individual must participate in and support the organization of which he is a part.

The interpretative report of the survey was submitted to our House of Delegates and in an amateurish way we made an effort to implement it. What we did was in the right direction but could not be considered under the heading of effective therapy.

Shortly thereafter, we were confronted by the threat of Compulsory Health Insurance initiated by a governor who up to this time had given indication of a sounder attitude toward medical problems. We then sought the aid of the agency which had conducted the original survey. It was of the opinion that our situation would be better served by another type of organization and it suggested three. One was chosen, and since that time the public relations of the California Medical Association have been under professional direction.

Policy making resides in the House of Delegates and the Council of the Association. Inasmuch as the latter meets at much more frequent intervals and is more familiar with the changing picture, it usually takes the lead. The Council is advised by a committee composed of the Executive Secretary, the Legal Counsel, the Legislative Counsel and the Public Relations Counsel of the Association and the Executive Secretaries of the various County Societies having such officers. In this way, the Council is provided with the advice of a group of loyal lay employees who are experts in certain fields and most of whom have had newspaper experience. The Committee is purely advisory and has no authority to act independently. After the Council has made a decision concerning a matter which may influence public relations, the Executive Secretary of the Association acts as liaison officer to correlate the activities of those charged with carrying out the instructions of the Council. This arrangement has worked very satisfactorily.

A successful program of public relations must be based upon the worth of the group wishing to mold public opinion. Putting and keeping our house in order is the responsibility of the medical profession itself. The presentation of the viewpoint of the profession to the public is primarily the function of experts in this field, but the physicians must actively participate in this phase as well.

This was more simply stated by an acquaintance who has had considerable experience in this work, when he said, "The key to satisfactory public relations is to be 'good' or do 'good' and tell the public about it."

Our responsibility is to see that the medical profession is deserving of respect and then to see to it that the public is sufficiently informed that it will accord the profession the respect it deserves.

The basis of good public relations is primarily laid by the individual physician, whether family doctor or specialist. We all recognize that he has a dual duty to his patient. He must give to the patient the best professional care he is able, and he must treat the patient fairly in an economic sense.

There is comparatively little cause for concern on the basis of medical care. The vast majority of physicians are able and conscientious. Medical standards in this country are higher than they have been at any time and are higher than those of any other country. Medical societies, hospitals staffs and the courts provide protection for the patient in the rare instances of incompetency and neglect.

PHYSICIAN-PATIENT ECONOMIC RELATIONSHIPS

On the economic side, it is a rare physician who knowingly imposes an unfair financial burden upon his patient. Instances of the failure of the physician to measure up to this responsibility, however, are much more numerous than dereliction in the purely professional aspects. The economic relationship between the patient and the physician also presents an opportunity for genuine difference of opinion, and in certain instances patients are unreasonable or dishonest.

Whenever a physician treats a patient unfairly in a financial sense, he damages not only himself and the patient, but also the entire profession. It is, therefore, the concern of the profession to see that such practices are controlled.

Many county societies have established fee committees or grievance committees to which fee disputes may be referred. A better plan is to prevent disagreements from going that far.

There are two methods of approach and both should be utilized. The first is to educate the physicians concerning their responsibilities and the harm improper practices do to the entire profession. The second is the establishment of Bureaus of Medical Economics in the county societies. In California, the latter plan has been brought to greatest development in Alameda County and has been or is being instituted in all the counties about San Francisco Bay.

Briefly, the plan consists of the establishment and operation of a credit exchange and collection bureau for the members of the society. This bureau provides a variety of services to its members but the primary object is to have delinquent accounts referred to it early. The bureau then conducts an investigation of the patient and his ability to pay. It is also in a position to estimate the importance, extent and reasonable value of the services rendered. Dependent upon this investigation, it recommends what course should be followed. The ultimate decision remains in the hands of the physician concerned. He is usually agreeable to the recommendation of the bureau which makes every effort to reconcile the patient's financial status with the value of the services rendered. The patients are, likewise, pleased in most cases. The bad public relations effect of disgruntled patients loudly proclaiming that the medical profession is a group of robbers is largely obviated.

This program has reached a point in Alameda County that the county association has been able to advertise in the newspapers asking that anyone unable to obtain medical care because of inability to pay for it contact its offices. It has guaranteed to arrange for care within the ability of the individual to pay. The distinction between medical care and hospitalization has been carefully pointed out. The Bureau received three pertinent calls in response to its first campaign and none as a result of its most recent one.

Consider the public relations value of this type of advertising. It has resulted in favorable news stories and editorial comment. It has had a considerable impact upon the Legislature where a new Compulsory Health Insurance bill is pending.

COSTS HAVE RISEN AS CARE HAS IMPROVED

For 15 years, we have been in a period of diminishing individual responsibility and increasing governmental interest in personal welfare. While most of us are opposed to this tendency—and I heartily dislike it—we cannot afford to ignore the facts. We, as physicians, realize, probably more than any other group, the ever increasing costs of adequate medical care resulting from the continuous expansion of diagnostic and therapeutic procedures. While the major portion of the increase in cost is the result of hospital charges over which we have little or no control, it represents a part of the total bill the public is called upon to pay.

The unbudgeted expense of modern medical care constitutes the only valid argument for Compulsory Health Insurance. We know the deficiencies and consequences of socialized medicine and how bad it would be for both the patient and physician.

We also know that in the field of health insurance there is nothing government can do for the people which they cannot do for themselves, and do better and at less cost.

We may have no more moral responsibility to provide the methods of defraying the costs of medical care than have those who provide any other necessary service to the public to do the same in their own fields. Enlightened self interest, however, dictates that we do what we can to assist in the solution of this problem. A satisfactory method must be supplied within the existing framework of private enterprise or government will step in and the result will be regimentation and bureaucratic control.

As a consequence of our public opinion survey the California Medical Association made its decision to fight socialized medicine on the basis of Voluntary versus Compulsory Health Insurance. We were successful in the 1945 Legislature but our success was based more upon future prospects than actual accomplishment. So it was necessary to implement our determination with a positive program.

The California Medical Association commenced an intensive campaign early last year to sell voluntary health insurance. This effort has been to sell not only California Physicians' Service, but also the Blue Cross plans and the policies of private carriers providing sound coverage. The California Committee for Voluntary Health Insurance was founded. Membership in this organization is restricted to non-profit plans and good insurance companies. It has conducted campaigns in 27 of our 58 counties to date.

After preliminary publicity, each campaign opens with a dinner meeting to which are invited public officials and representatives of the business, professional and employee groups. Proclamations in support of Voluntary Health Insurance are issued by the mayors of the cities in the county and endorsed by other officials, prominent citizens and groups. The objectives of the campaign are outlined and the support of the public solicited. The campaign continues for one week or longer depending upon the size of the county, and during this period extensive newspaper and radio advertising is used. The cooperation of the press has been splendid and its assistance extremely valuable. In this way, the doors are opened for the salesmen to enroll the people in voluntary programs.

The results of the first year's efforts have been amazing. California Physicians' Service membership has grown from 176,000 to 419,000. Membership in Blue Cross, with some of its containing indemnification for medical care, has increased from 350,000 to 610,000 in California. It is reliably estimated that the private insurance companies have sold between three and four policies for each subscription to California Physicians' Service. This means that the holders of sound prepayment coverage have increased more than one million and probably more nearly a million and a half in the past year.

This increase in enrollment is even more striking when it is realized that these figures were compiled before any of the more populous counties had been reached. The campaigns were begun in the smaller counties to gain experience in their conduct before they were launched in the more important areas.

COLLATERAL BENEFITS

In addition to the growth of the voluntary insurance program, these campaigns have built goodwill for the California Medical Association and the profession. There has been outspoken commendation of the medical profession from many sources.

The campaigns have destroyed the fiction that the physicians are in opposition to progress and wish to retain a preferred position to the detriment of the public.

In addition, the California Medical Association has maintained a weekly broadcast over a statewide network. The subject matter of these broadcasts consists of historical anecdotes of California. The commercials announce the sponsors to be "The California Medical Association and your Family Doctor" and briefly point out the values of voluntary health insurance and California Physicians' Service.

The salesmen for California Physicians' Service state that prior to the campaigns just outlined, they spent most of their time explaining to prospects what California Physicians' Service was, but now the majority of the people to whom they talk already have some familiarity with it.

There is a close relationship between public relations and politics but the fields are not coextensive. The California Medical Association has been alert in a political sense for a considerably longer time than in a public relations sense. Medicine is definitely in politics throughout the country. Physicians naturally prefer to abstain from this field but they must come to the realization that if medicine is to remain free, they must meet their enemies in the sphere of practical politics. Few people appreciate the political force of an aroused and united medical profession. No longer can our organizations confine themselves to purely scientific matters. Our county and state societies and the American Medical Association must necessarily make their influence felt in matters which concern public health and welfare and the practice of medicine.

Projects such as those outlined are necessarily expensive. During the past year, the California Medical Association has expended more than two hundred thousand dollars. The expenditure for 1947, will be half again greater. To many, this will seem to be a very large outlay, but American Medicine is on the threshold of decision. The hour may be later than we think. Let it not be said that we were too niggardly to defend our freedom and the American way of life with sufficient force to prevent the advance of Socialism. If the keystone of medicine falls the next pressure will push over the entire structure of free enterprise. We need only to look to the English experience. Compulsory Health Insurance came in 1912. Now 1947, barely a generation later, has witnessed the complete socialization of medicine, of the Bank of England, of the railroads, of the coal mines and of the land. In this country, Medicine has already come under attack. We cannot afford to ignore the historical parallel.

NO TIME FOR COMPLACENCE

We must be sure that the funds, which we handle in trust, are wisely expended so that the maximum effect may be obtained, but *we must be certain that we do enough.* It is far wiser to do more than necessary, than too little. We should look forward to greater efforts and expenditures rather than to complacence and economy.

We may be thankful that the recent change in the national political situation gives us more time to do our work effectively but we should not delude ourselves that this condition will continue indefinitely. We should use the time given to us to strengthen our position so that when the next assult comes we will be better able to repel it. The advocates of Compulsory Health Insurance and Socialism are not idle. They are continuously at work looking to the time of greater opportunity.

These, then have been the experiences of the California Medical Association and the lessons to be derived from these experiences. It is not necessarily true that they apply with equal force throughout the country but in some measure they pertain everywhere. We have been unfortunate enough to be forced to face three distinct eras of determined efforts to socialize our profession. The recent attacks have been the most difficult to defeat. If we are successful in the present battle we shall have no fear of the immediate future. We shall then have built a Voluntary Health Insurance bastion against compulsion.

If our experiences and what we have learned from them can be of value to other states in meeting the same or similar problems, we shall be pleased to assist in any way we can.

490 Post Street, San Francisco.

Some Clinical Aspects of Rheumatic Fever In the Adult on the Pacific Coast*

Maurice Eliaser, Jr., M.D.,† *San Francisco*

RHEUMATIC fever is generally considered to be a disease that initially occurs in childhood, most frequently between the ages of five and twelve.[3,6,10,17,18] It is characterized clinically by fever, polyarthritis—usually migratory in type—and cardiac involvement which may or may not be readily detectable. Chorea is commonly included as a manifestation of the disease in children but is rarely found in the adult group. Other suggestive but not diagnostic criteria are tachycardia, epistaxis, subcutaneous nodules, erythema—usually either nodosum or marginatum—purpura, pneumonitis, and peritonitis. The former primarly constituted the standards by which the diagnosis was determined in the adult cases to be described.

It is now fairly universally agreed, etiologically speaking, that the disease represents an abnormal response—resembling anaphylaxis or hypersensitivity—of the host to the beta hemolytic streptococcus, most frequently group A, or its product. It implies the occurrence of a streptococcal infection preceding the onset of a rheumatic attack by about two to three weeks in a susceptible individual; the susceptibility seemingly has definite hereditary aspects, especially in the juvenile group. In rheumatic fever occurring in childhood, considerable emphasis has been placed upon familial, dietary, social, and economic factors.[11,13,14] Also geographic variations have been considered important, both as to the occurrence and the severity of the disease;[1,7,12,16] that the rheumatic state can also be incurred in tropical and semi-tropical regions is now clearly recognized although it is found in these areas usually in less severe and more occult forms. It is an interesting fact that the original area of residence of the patient is of far less importance than his location at the time of incurring the disease. Militarized personnel stationed on the Pacific Coast developed a type of rheumatic fever comparable to that seen among the civilian population in the area regardless of their place of origin.

The cases to be discussed are instances of rheumatic fever as it occurs in older age groups; i.e., soldiers with an age range of 18 to 37 years, averaging 26 years. They were individuals whose period of military service varied between several weeks and three and a quarter years, averaging seven and a half months between induction and the onset of the disease. They were all sporadic cases, lacking the epidemic characteristics noted in large naval training centers as described by Jones[8] and others.

Because of the uniformity of living conditions among members of the Army stationed at the same post and undergoing the same training, as these were, it is obvious that many of the variables encountered in surveying rheumatic fever among civilians are eliminated, namely, the dietary, familial, environmental, social and economic factors.

The group studied consisted of 33 patients who were personally seen at an Engineer Replacement Training Center in Oregon, near Bend, at the inception of their disease in the spring of 1944 and subsequently transferred from the Station Hospital to a General Hospital in Walla Walla, Washington. They were under continuous personal observation throughout the entire course of the illness until they were either returned to duty or separated from the service—this represented six months for each patient. This group comprised 39 per cent of the total number of 85 cases followed, the second group being those with recurrent attacks of rheumatic fever. Because the problem of the recurrent case is associated with complicating factors as to etiology, clinical course, etc., it is not being discussed here in detail.

We were aware of the difficulty involved in deciding which is the *initial* attack of rheumatic fever, especially on the Pacific Coast where the joint manifestations are so often mild; and also that about 30 per cent of all persons suffering from rheumatic heart lesions are not aware of their ever having had the acute disease.[17] It is believed, however, that the present group primarily represents initial attacks. This will be fairly well shown when we review the prodromal disease leading up to the onset of rheumatic fever.

The majority of the new cases were of the monocyclic type which is consistent with the findings of Griffith[5] and others, who observed the disease among naval personnel in California.

GEOGRAPHIC ASPECTS

Regarding the geographic aspects of the disease on the Pacific Coast, it was found that its characteristics were practically identical in Oregon and California where we observed another series of rheumatic patients who were hospitalized at Santa Barbara. Furthermore, these two groups were strikingly comparable to a series of 20 adult civilian shipyard workers who developed rheumatic fever in the San Francisco Bay area.[15]

The histories of the patients in the Oregon group did not reveal any consistent family history of rheumatic fever. The patients were not found to represent an underprivileged group either socially or economically, and questioning as to previous civilian occupation revealed nothing of significance.

Of the 33 patients, only three had scarlet fever

* Read before a Joint Meeting of the California Medical Association and the California Heart Association, Los Angeles, May 10, 1946.

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† Formerly Lt. Col., MC, AUS.

during childhood or adolescence, which was significantly lower than a control group of 100 nonrheumatic patients of the same age range. The incidence of recurrent spontaneous epistaxis was 30 per cent compared with 11 per cent in the controls. This variation is of some interest because of the recent tendency to discount the significance of nose bleeding among juvenile rheumatic fever patients.

Only two patients presented histories of previous asthma; the remainder failed to describe any symptoms that could have been considered to be of an allergic type. This may indicate that the hypersensitivity of streptococcal origin differs from clinical allergy as we now recognize it.[9a]

Twenty-seven per cent of the patients had had their tonsils removed, compared to 33 per cent of the control group. This suggests the questionable value of the procedure prophylactically, as has been repeatedly shown in large series of juvenile cases in New England and elsewhere.

The type of disease that was assumed to be causally related to the onset of rheumatic fever is shown in Table 1. The examples of pneumonitis

TABLE 1.—*Type of Premonitory Disease and Time Interval Preceding Onset of Clinical Manifestations of Acute Rheumatic Fever*

Premonitory Disease	Number of Patients	Average Days Between Premonitory Disease and Rheumatic Fever
Tonsillitis Pharyngitis	18 (55%)	13.4
Scarlet Fever	6 (18%)	19.0
Arthralgia	5 (15%)	...
Acute Upper Respiratory Infection	2 (6%)	21.0
Pneumonitis	2 (6%)	17.5
Total: 33	Average: 17.7	

probably did not represent intrinsic pulmonary rheumatic involvement because of the interval elapsing between the two diseases.

Incidentally none of these patients attributed the onset of rheumatic fever either to exposure, dampness, or to unusual fatigue. However, among the 55 patients who developed recurrent attacks, 47 per cent related their attacks to one or the other or all of these. Likewise the premonitory conditions which preceded the onset of acute and recurrent rheumatic fever differed, as shown in Table 2.

Physical examination did not reveal any evidence that there was a disproportionate number of patients with blond or red hair or blue eyes as has been suggested among juvenile rheumatic individuals, and no consistent body conformation was noted among the affected adults.

Generalized lymphadenopathy was detected in 88 per cent of the patients at the height of the disease. It has been previously reported that lymphadenitis is even more common among the juvenile than the adult individuals.[9b]

No instance of erythema nodosum or marginatum was found. This is consistent with the concept that the skin is an important shock organ among children suffering from any disease associated with abnormal sensitization. Also erythema nodosum is known to occur ten times more frequently among women than men[9c] and the present series represents only the adult male.

The joints involved were primarily the major ones, the ankles, knees, shoulders and elbows being most commonly affected, in that order. The belief that extensive articular involvement precludes cardiac disease was not substantiated. Although in some instances the joint manifestations were prominent features at the onset, very rarely did they attain the degree of swelling, redness, and immobility so commonly seen among children, especially in such highly endemic areas as New England and the Rocky Mountain States. Actually, relatively mild articular disease has been characteristic on the Pacific Coast among all age groups, which may well account for the apparent frequency of missed acute cases. The occasional occurrence of symmetric fusiform swelling of the proximal interphalangeal joints associated with extensive carditis substantiated the clinical belief that involvement of the small joints is of serious import in the adult as well as in the child.

PRESENCE OF SIGNIFICANT CARDIAC MURMURS

Significant cardiac murmurs were detected in 15, or 45 per cent, of the patients at the onset of the arthritic phase of the disease. In five of these patients the murmurs had receded by the time of clinical quiescence. Of the 18 without valvulitis, only one patient developed a significant cardiac murmur during the acute phase of the disease.

Five examples of murmurs originally of important intensity that disappeared during convalescence were encountered. This raised the usual question of the difficulty in evaluating any cardiac murmur during the acute phase of the disease. However, in the adult, among whom the condition occurred with relatively low fever, mild tachycardia, and less pronounced systemic manifestations, the finding of any cardiac murmur cannot be so lightly considered as those in the acutely ill, markedly febrile child (Tables 3 and 4).

Regarding laboratory data, procedures were carried out in an attempt to establish the specific group and type of streptococcus involved in causing the acute as well as the recurrent episodes. Likewise antistreptolysin titer determinations were

TABLE 2.—*Comparison of Premonitory Disease Preceding Clinical Manifestations of Acute and Recurrent Rheumatic Fever*

	Scarlet Fever	Tonsillitis Pharyngitis	Arthralgia	Acute Upper Respiratory Infection	Appendicitis
Acute	18.0%	54.0%	15.0%	12.0%	
Recurrent	3.3%	16.7%	63.6%	10.0%	6.7%

obtained in many instances. For practical purposes the erythrocytic sedimentation rates proved to be of greatest clinical value. The range in the acute cases was between 27 and 60 mm. per hour by the Wintrobe method, in which method 0 - 9mm. is considered normal. The average rate at the time of admission to the hospital was 47 mm. per hour.

TABLE 3.—*Cardiac Involvement at Onset of Disease*

No demonstrable valvulitis	18 (54.5%)
Mitral valvulitis	9 (27.2%)
Mitral and aortic valvulitis	4 (12.1%)
Aortic valvulitis	1 (3.1%)
Pancarditis	1 (3.1%)

TABLE 4.—*Incidence of Lesions Among 15 Patients with Clinically Demonstrable Heart Disease*

Mitral involvement alone	60.0%
Aortic involvement alone	6.7%
Mitral and aortic involvement	26.6%
Pericarditis	6.7%

It was arbitrarily assumed that the acute phase had been terminated when the sedimentation rate reached 10 mm., if not associated with subjective or other objective evidence of activity. By these standards the average duration of the disease was 63 days, compared with the average of six months usually reported among juvenile patients. An incidental observation was that those patients whose sedimentation rates were more rapid at the onset frequently had a shorter course than the low-grade subclinical group who often had lower initial rates and more prolonged periods of activity.

RARE EVIDENCE OF PSYCHONEUROSIS

An interesting observation among the acute rheumatic adults was that they exhibited evidence of psychoneurosis very rarely. This was quite striking when these patients were compared with soldiers complaining of joint pain due to other causes. As a preliminary differential point in ruling out so-called psychogenic rheumatism, it was of almost diagnostic significance. Likewise it emphasized the importance of carefully evaluating the persistent arthralgia which occasionally follows the subsidence of the acute phase of rheumatic fever, in the absence of radiographic or other objective signs.

During the period of initial observation of patients with rheumatic fever it was repeatedly found that soldiers complained of mild joint pains without demonstrable articular involvement. These could easily have been erroneously considered to have been without organic basis if further investigation had been omitted. Careful questioning, cardiac examination, determination of the sedimentation rate and electrocardiography were necessary to evaluate properly the condition.

The electrocardiograms were of considerable interest in this series of cases. They revealed the alterations of intra-auricular and auriculo-ventricular conduction which are well known. In addition, a large number of abnormalities of the ST-segment were noted which were considered to be of possible diagnostic significance.

As for prognosis, of the military groups studied in the Pacific Northwest and Southern California, approximately 35 per cent were returned to duty in accordance with the then established army criteria for apparent quiescence. The various reconditioning programs were of definite value in completing convalescence. Actually there is reason to believe that no one should continue to remain in military service after he has proved to be a sensitized individual, regardless of the presence or absence of demonstrable cardiac complications.

Therapeutically, sodium salicylate was generally employed in daily doses of 10 to 12 gm., with the usual prompt response noted in children. The question of concomitant administration of sodium bicarbonate is still debatable but there is good reason to believe that it lowers the desired blood levels of salicylate by reducing absorption and increasing renal excretion of the drug and that, contrariwise, acidic urine reduces renal excretion and thereby raises the blood levels.[2] In those persons who were unable to tolerate the drug by mouth, the administration of an 1 per cent aqueous solution of sodium salicylate intravenously for the first day or two was found to be quite safe when given slowly. We did not believe that we had observed our patients sufficiently long to ascertain whether prolonged high salicylate blood levels actually reduced the incidence of late cardiac complications as has been suggested.[4] Penicillin did not alter the course of the disease.

We encountered several examples of the well-known deleterious effect that the sulfonamides have upon an attack of rheumatic fever. Not only do they lack any beneficial therapeutic effect but seemingly they aggravate the condition. There is currently considerable discussion as to the mechanism involved, but, regardless, it is safe to say that the use of this group of drugs is clearly contraindicated during the active phase of the disease.

Prophylactically it has been well established that small doses of sulfadiazine given over prolonged periods of time will reduce the incidence of recurrent attacks of rheumatic fever in adults and children. In adults 1.0 gm. is an adequate daily dose.

In summary it can be said that rheumatic fever, as it occurs in adults on the Pacific Coast, presents a diagnostic challenge. The relatively mild nature of the acute arthritic phase of the disease coupled with the significantly high incidence of cardiac disease warrants serious consideration.

It is appreciated that during and following streptococcal infections, especially those of group A, some persons will develop carditis without arthritis. Nevertheless, critical evaluation by physical, diagnostic, laboratory, and electrocardiographic methods is essential if one were to explain the paradox on the Pacific Coast that *rheumatic fever* is rather rare, but *rheumatic heart disease* is fairly common.

SUMMARY

1. The study of acute rheumatic fever among adults who were members of the armed forces re-

vealed that there were several differences that distinguished it from the juvenile form.

2. Military life is such that dietary, familial, social and economic conditions are fairly constantly eliminated as influencing factors in the initial attack of the disease. This is especially true in a group of soldiers undergoing identical training at the same camp.

3. Hemolytic streptococcal infections, including scarlet fever, are common precursors of the acute disease in the adult and are followed by a two- to three-week period during which extremely strenuous physical activities do not produce symptoms.

4. Clinically significant cardiac murmurs were audible in 45 per cent of the patients at the onset of the disease. Probable valvulitis was revealed in 15 per cent at the onset but was not detectable following convalescence.

5. The involvement of joints among adult patients developing their initial attack in the Pacific Coast area is relatively mild compared to that described in children in several other parts of the United States.

6. The duration of the active phase of the disease averaged 63 days, using all the accepted clinical and laboratory methods to determine activity.

7. There is absence of psychoneurosis among patients with acute rheumatic fever. This fact is striking when compared with cases of arthralgias of other types in military personnel.

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The Electrocardiogram in the Diagnosis And Management of Rheumatic Fever*†

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THE diagnosis of rheumatic fever in adults has at times been difficult because of atypical clinical features. Jones[1] has indicated the following list of criteria for diagnosis, of which carditis is the major manifestation:

1. Major manifestations:
 Carditis, arthralgia, chorea, nodules, and verified history of previous rheumatic fever.
2. Minor manifestations:
 Fever, abdominal or precordial pain, erythema marginatum, epistaxis, pulmonary changes, and laboratory abnormalities.

In adults, chorea and nodules are rare, and a verified history of rheumatic fever is difficult to obtain. Of the major manifestations, therefore, one is dependent on arthralgia and carditis. Arthralgia is often absent, or may be minimal, subjective or monarticular. Its interpretation is at times difficult, but when associated with carditis, its significance becomes clear.

Carditis, then, is the outstanding major manifestation to be searched for in rheumatic fever in adults. It may be recognized by cardiac enlargement, cardiac failure, acute pericarditis, significant murmurs or significant electrocardiographic abnormalities. Of these evidences of carditis, only murmurs and electrocardiographic abnormalities are common in rheumatic fever in the adult; of the murmurs, diastolic murmurs are unequivocal but uncommon; and systolic murmurs are difficult to evaluate and are often heard in febrile diseases without carditis. Therefore one must depend largely on electrocardiographic abnormalities as the most common evidence of carditis.

Minor changes in the electrocardiogram must be evaluated carefully, and the widening range of normal variants considered before interpreting such changes as indicative of carditis. The following table shows (a) the frequency with which various abnormalities in the electrocardiogram were observed among 700 cases studied at the U. S. Naval Hospital, Oakland, California, and (b) the duration of the A-V block in 76 cases:

Total cases of rheumatic fever	700
Total cases of abnormalities in the electrocardiogram	147
a. Of the 147 cases:	
1. Conduction defect	88
A-V block	86
I-V block	2
2. Significant T wave changes	52
3. Miscellaneous (including abnormal rhythms)	26
b. Duration of A-V block in 76 cases:	
0— 8 days	14
9—14 days	39
15—28 days	20
Over 3 months	3

Some of the changes noted such as nodal rhythm, axis changes, P wave changes, etc., might be controversial, but definite partial A-V block and diphasic or inverted T waves are considered significant. The high incidence of significant T wave changes in the absence of clinical signs of acute pericarditis is noteworthy.

A-V conduction defects, the most common abnormality found (60 per cent), have been frequently discussed. Such a conduction defect may manifest itself as delayed A-V conduction, complete A-V dissociation, partial A-V block with dropped beats, or partial progressive A-V block with Wenckebach phenomenon. To be of diagnostic value, a delayed A-V conduction should have a PR interval of at least 0.20 sec., with due consideration of the cardiac rate. On the other hand, some cases will be missed with this criterion in mind, because it has been observed that a PR of 0.18 or 0.19 sec., seen at the onset of the disease, may shorten to 0.12 or 0.13 sec. as the patient improves. The former figure, while in the normal range, thus, in retrospect, may prove to be abnormal for the particular patient. Unless unequivocal evidence of rheumatic fever was present, no diagnosis of carditis was made in our series of cases, unless a decrease of at least 0.04 sec. occurred in the PR interval with clinical improvement.

The changes in the PR interval may be surprisingly transient and intermittent, and the frequency of abnormal tracings depends on the frequency with which electrocardiograms are taken.

CASE REPORT

The following case report illustrates the point in question.

Case 1. W.C.J., Y 3/c, age 19, was admitted to the U. S. Naval Hospital, Oakland, on March 22, 1945. He had had

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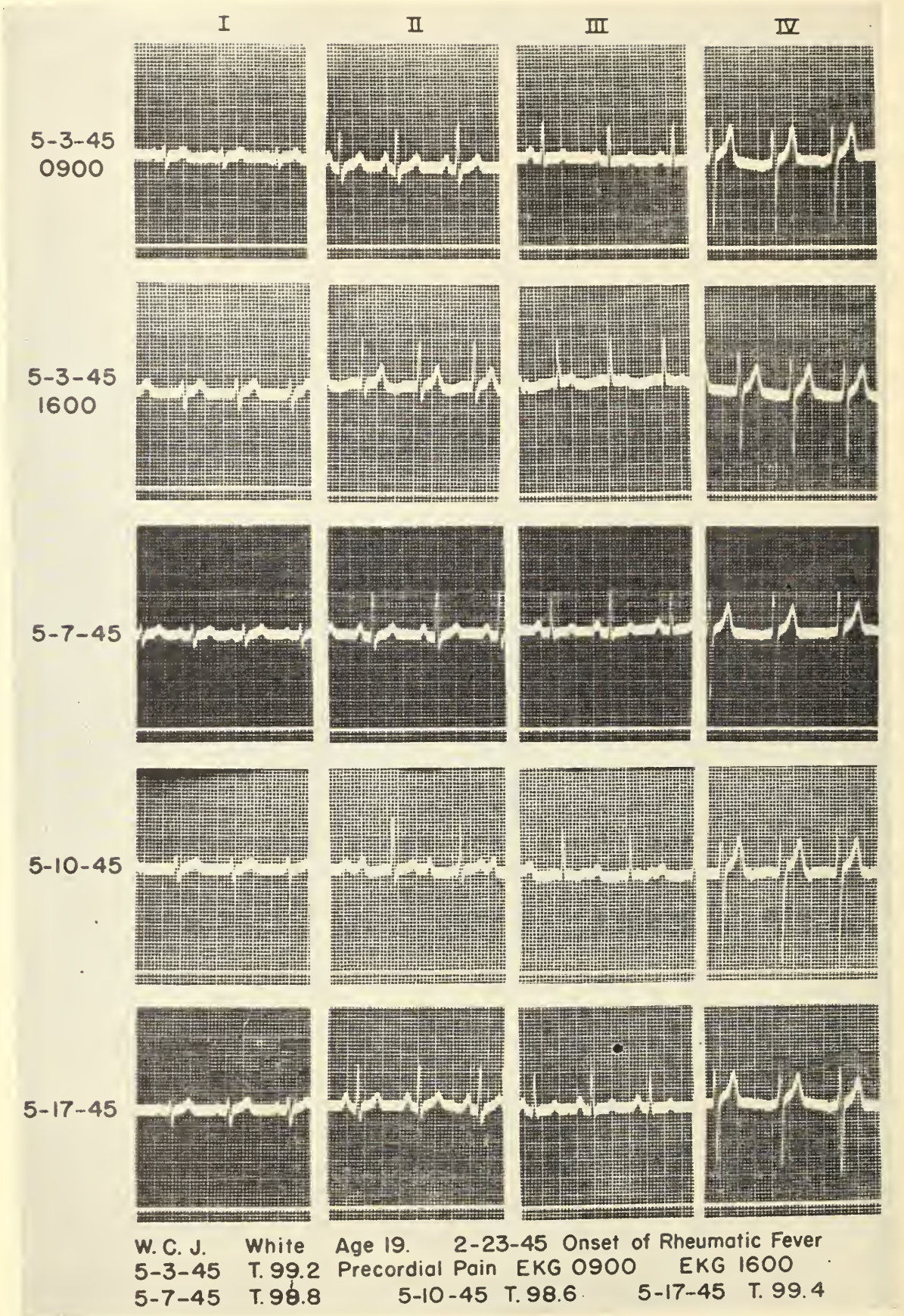


Figure 1.—Transient conduction defects in rheumatic fever.

an attack of rheumatic fever with polyarthritis 18 months before, which lasted two weeks. He developed arthritis of the ankles on February 23, 1945, while aboard ship in the South Pacific, without previous upper respiratory infection. At that time an elevated blood sedimentation rate (B.S.R.) of 26 mm. per hour* was found, but examination of the heart, and an electrocardiogram were normal. He was placed on salicylates and transferred via several naval activities to the United States. During the transfer, this medication was stopped and he developed arthritis of the right knee.

On examination on March 22, 1945, he had a temperature of 101.2°F. and polyarthritis of the ankles and of the right knee. Examination of the heart was negative. The B.S.R. was 29 mm. per hour. Three electrocardiograms taken at intervals were normal with a PR of 0.16 sec. until April 9, when a partial A-V block with a PR of 0.40 sec. was found. Four days later the PR was again 0.16 sec. On May 3, he complained of precordial pain and aching of the right knee, but an electrocardiogram taken at 9:00 in the morning was normal with a PR of 0.16 sec. At 4:30 in the afternoon of the same day the PR was 0.36 sec. This partial A-V block persisted for four days until May 7, when it was again 0.16 sec. Three days later the PR was 0.36 sec., and a week later the electrocardiogram was normal (Figure 1). During the period in which the variable transient partial A-V block was observed, the patient had frequent bouts of lowgrade fever to 100.4°F. (Figure 2) despite full doses of salicylates. The B.S.R. remained elevated between 19 and 30 mm. per hour, until August 19, five months later, when it fell to 6 mm. per hour. The electrocardiogram remained normal between May 7 and June 7, but on the latter date the PR was noted to be 0.44 sec. A week later it was again 0.16 sec. and remained at that figure until August 16, when it was 0.14 sec. On September 20, he was transferred to a convalescent hospital.

Comment. This interesting case illustrates the chronic active form of rheumatic fever resembling that so often seen in children. The repeated episodes of transient partial A-V block, at times lasting only a few days, is noteworthy. The changes from a normal electrocardiogram to a PR of 0.40 sec. within a period of 7½ hours as seen on May 3, emphasizes how a partial block may be missed unless frequent tracings are made.

T WAVE CHANGES

T wave changes have been mentioned in the literature but have not been given the close attention that the frequency of their occurrence merits. Most writers have commented solely on the change in the T waves in association with acute pericarditis.

* Westergren method used throughout.

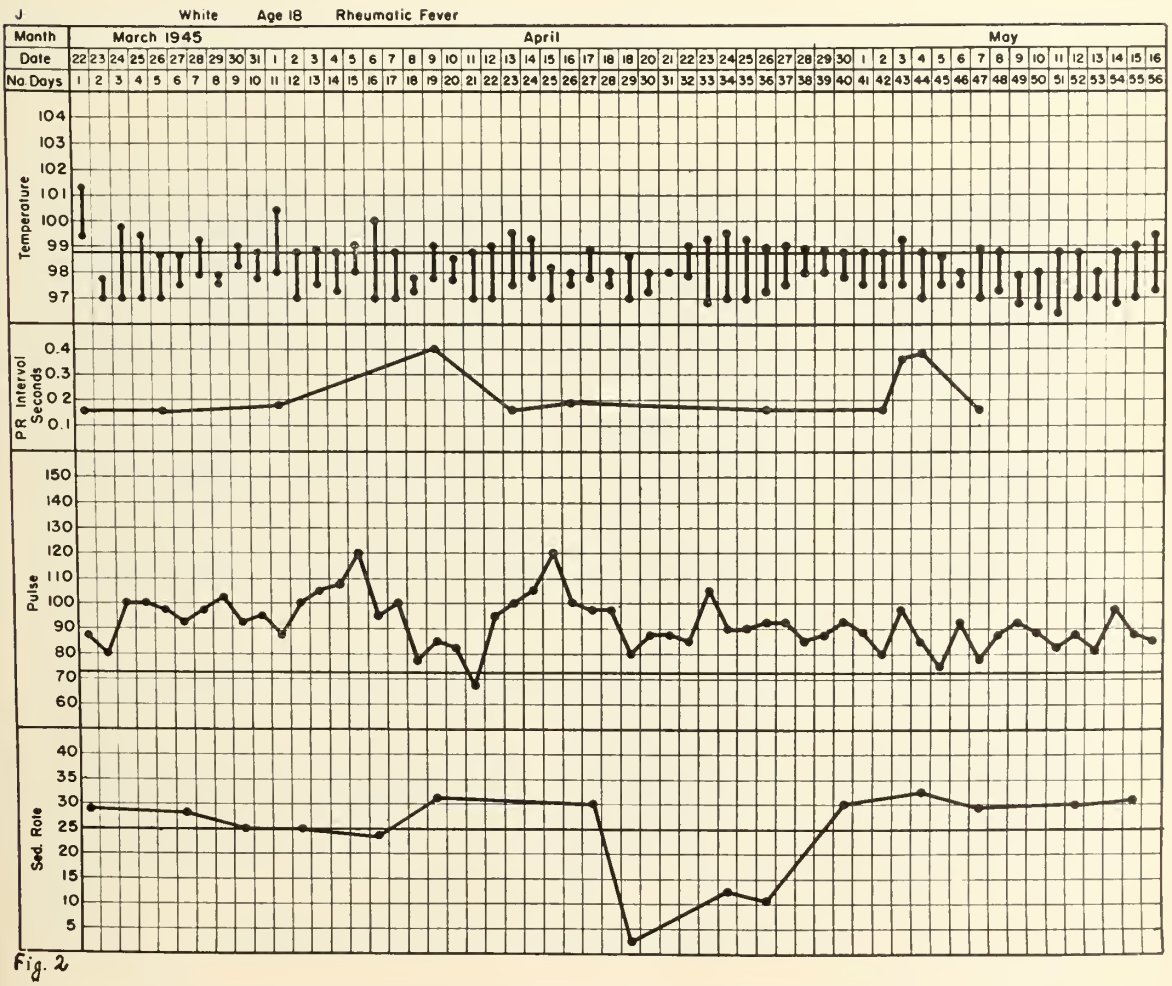


Figure 2.—Course of chronic active rheumatic fever with subclinical polycyclic episodes.

Lowering of the T waves, unassociated with tachycardia, is difficult to evaluate and while suggestive, has not been termed a significant electrocardiographic abnormality. The T wave changes are not so likely to be intermittent as the PR changes, but may be surprisingly transient. When serial records are taken, progressive changes toward normal occur through the diphasic, flat, and low T wave stages. Leads I, II and IV are usually all involved, as shown by early records; however, depending on the stage of recovery, abnormalities may be seen in single leads only, especially in lead IV. Due care for the position of the apical electrode with multiple precordial leads must be taken to evaluate changes in lead IV alone.

In addition to being helpful in the initial diagnosis of rheumatic fever, the electrocardiogram aids in following the course of the disease and in influencing its management. Polycyclic rheumatic fever has a more serious prognosis in terms of residual cardiac effects. Many polycyclic phases are subclinical, the patient being unaware of the renewed activity, even in the presence of fever. Abnormalities in the electroardiogram may reappear, making the recrudescence of carditis objective. After the disease is considered to be quiescent and the patient is allowed up he should still remain under close observation, and frequent electrocardiographic studies made and the blood sedimentation rates observed. We have seen recrudescences, first discovered by the appearance of electrocardiographic changes, even before the patient was aware of symptoms and at times before a higher B.S.R. and other signs of activity reappeared.

CASE REPORT

A case report illustrating the foregoing observations follows.

Case 2. J.W.B., S 1/c, age 18, was admitted to the Naval Hospital, Oakland, on January 26, 1945. Four days prior to entry he had noted pain in the arches of both feet which increased in severity and was associated with stiffness; on the day before entry he also noted slight swelling of the ankles. He had been very active prior to the onset and had had no constitutional symptoms except for moderate anorexia for the previous two days. There was no history of any previous attacks of rheumatic fever and no upper respiratory infection.

On arrival he complained of pain in his feet and right knee. The temperature was 102°F., pulse 112, respiration 18. The pertinent findings were confined to the joints and there was redness, tenderness and slight swelling of both ankles and of the toes. The right knee was stiff but not swollen. The heart was negative, as were the urine and blood Kahn.

The patient was put to bed but no salicylates were given. Three days after entry he developed pain in the right knee and in the shoulders and a rash diagnosed as erythema marginatum appeared over the thorax. The temperature was 100.6°F. The heart was slightly enlarged to the left, the heart sounds were muffled and distant and there now was a grade 2 blowing apical systolic murmur. No rub was heard and the patient had no precordial pain. The B.S.R. was 25 mm. per hour and the electrocardiogram revealed a flat T_2 and inverted T_1 and T_4 (Figure 3). He was given 10 grams of salicylates and observed.

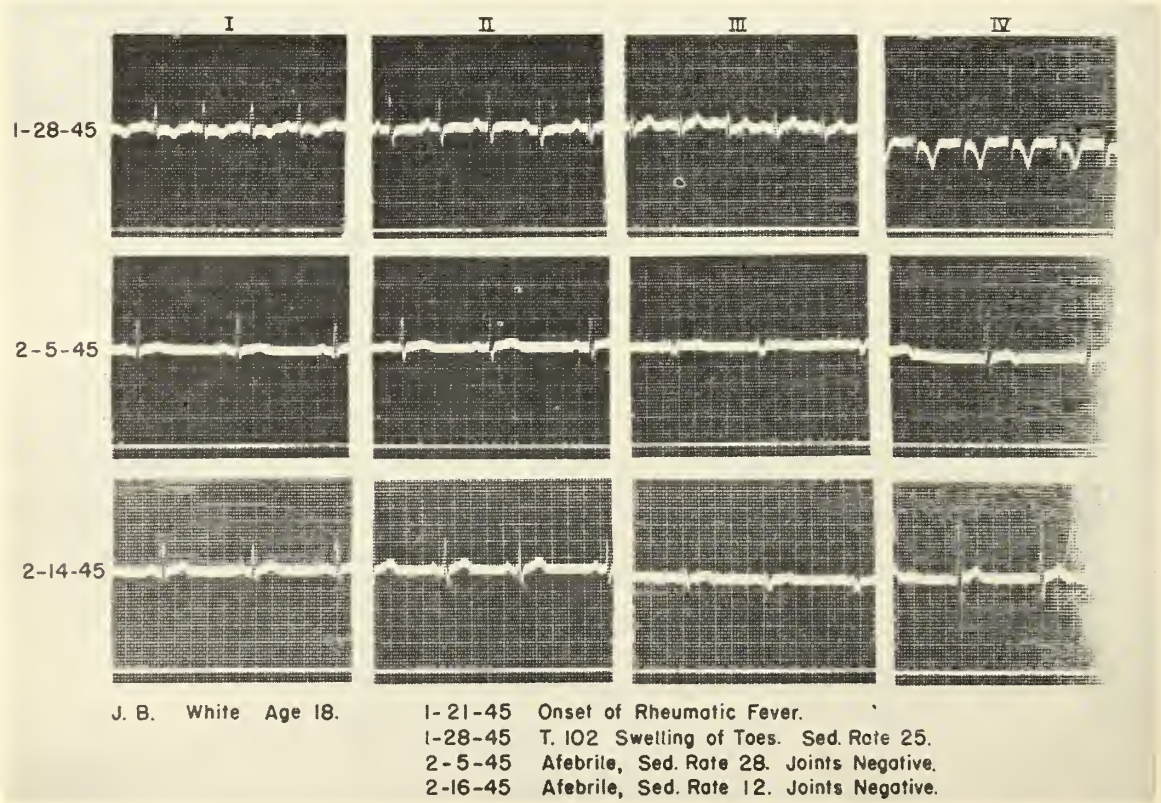


Figure 3.—T wave changes in rheumatic fever.

His temperature and pulse became normal within four days (Figure 4). His joint pains subsided more gradually but two weeks after entry he was entirely asymptomatic and the rash had disappeared. The heart sounds were fair, but more distinct. The apical systolic murmur was faint. The B.S.R. fell slowly, reaching 6 mm. per hour on March 8, 41 days after entry. The electrocardiogram became progressively normal. The total duration of the abnormal T waves was 19 days.

Comment. This case illustrates the typical usual sequence of T wave abnormalities in rheumatic fever, and the fact that they occur independently of A-V conduction abnormalities. The changes in the T waves are indistinguishable from those seen in pericarditis and it is believed that they are probably due to pericarditis which is not detectable clinically. The frequency with which pericarditis is noted pathologically is much greater than its clinical diagnosis because of the absence of diagnostic signs differentiating pericarditis from myocarditis in rheumatic fever. Myocarditis, without pericarditis, could cause the T changes and probably is in part responsible, but the serial changes strongly suggest a pericardial origin.

Residual activity. A real problem presenting itself occasionally is that in which residual electrocardiographic changes persist after all other signs of activity have subsided. The problem arises as to whether to allow the patient up in the presence solely of residual electrocardiographic abnormalities. Although some have questioned it, the most accepted procedure is to keep the patient in bed until all signs of activity have disappeared. Our policy has been to allow such a patient up, but keeping careful electrocardiographic control. In those patients in whom the residual electrocardiographic abnormalities indicated continued rheumatic activity, the tracing became more abnormal and other signs of activity such as an elevated sedimentation rate reappeared. If no recrudescence occurred with activity of the patient, he was allowed progressively to assume full activity. With this procedure, approximately 4 per cent of those patients with electrocardiographic abnormalities, or less than 1 per cent of the total rheumatic group, had fixed residual electrocardiographic changes, months after the disease became quiescent.

CASE REPORT

A case report illustrating such residual signs follows.

Case 3. J.R.J., S 2/c, age 18, was admitted to the Naval Hospital, Oakland, on March 6, 1945. His records showed

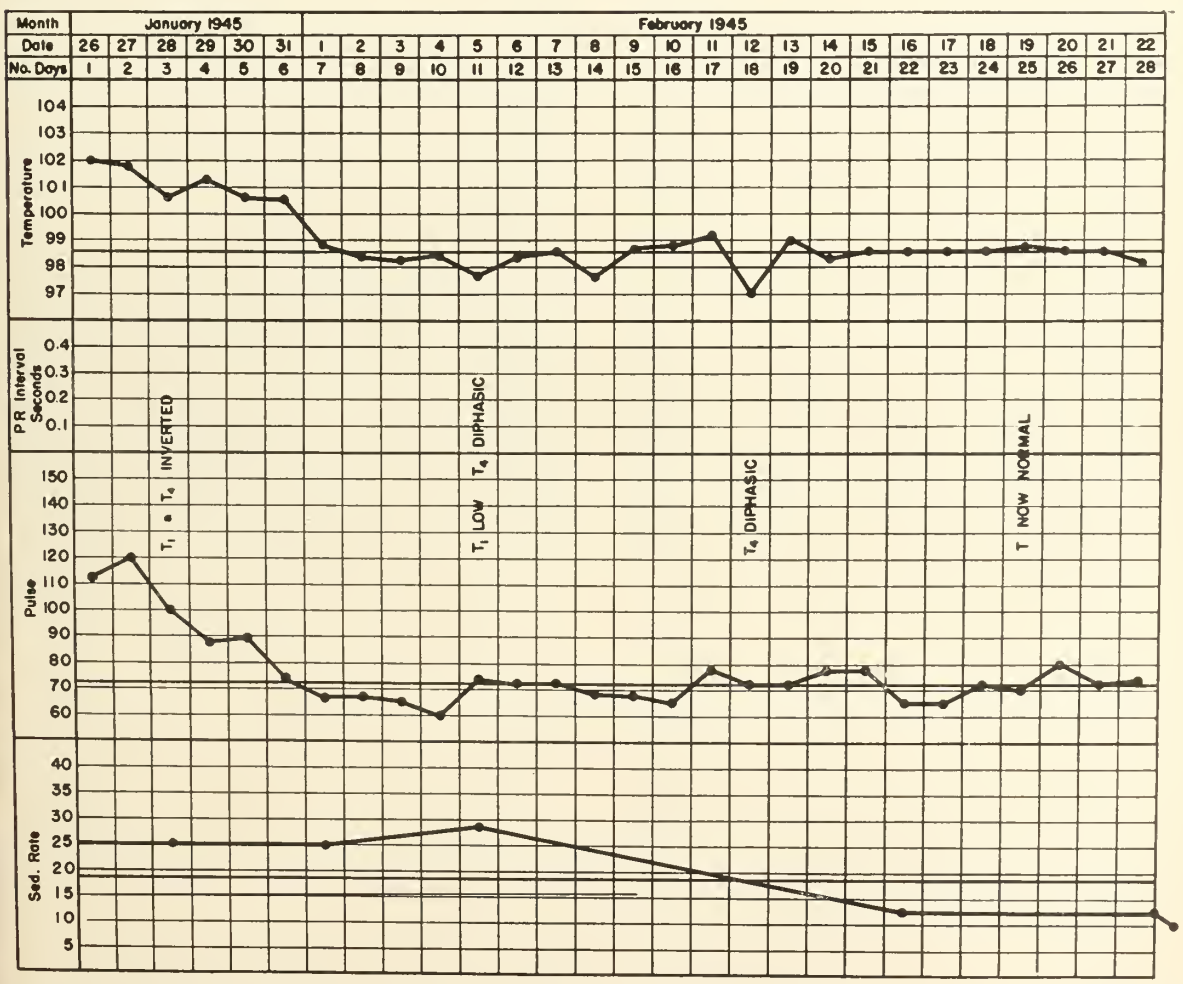


Figure 4.—Clinical course of monocyclic rheumatic fever with only T wave changes in ECG.

that he had had a febrile sore throat and tonsillitis on January 6, 1945, and he was hospitalized for a week. On January 18, he reported again to his sick bay because of the sudden onset of swelling and pain in his left knee. At that time he had a temperature of 101.2°F., the B.S.R. was 27 mm. in 30 min., but the heart was negative. He was treated with sulfadiazine and penicillin, but his fever and joint pain persisted and on January 23 he was placed on salicylates. Four days later he was afebrile and the knee was much improved. No electrocardiographic tracings were made. He was allowed up and his medication was stopped. By February 9, two weeks later, his B.S.R. had increased to 24 mm. per hour and an electrocardiogram revealed a partial A-V block with a PR of 0.28 sec. He was given 4 gm. of salicylates daily and put to bed. His B.S.R. was 21 mm. per hour on February 15, and 13 mm. on February 27. On March 1, his PR was normal and he was again allowed up and was transferred to the Naval Hospital, Oakland, on March 6, 1945.

On arrival he had no complaints, was afebrile, had a cardiac rate, in bed, of 63, there was no cardiac enlargement and no murmurs were heard. The joints were negative, both subjectively and objectively. The tonsils were enlarged as were the cervical lymph nodes which were also slightly tender. The laboratory data revealed a normal urine and negative blood Kahn. The hemoglobin was 78 per cent, the white blood cell count 13,200, with 62 per cent polymorphonuclear cells. The B.S.R. was 19 mm. per hour. The electrocardiogram revealed a partial progressive A-V black with Wenckebach phenomenon. The PR was 0.30 sec.

The patient was kept in bed and given 10 gm. of salicylates daily. He remained asymptomatic and afebrile and there were no abnormal findings in the skin, heart or joints. The B.S.R. fell to 8 mm. per hour in four days and throughout March and April his B.S.R. varied from 3 to 8 mm. per hour. Electrocardiograms taken twice a week revealed partial A-V block in all, the PR varying from 0.22 to 0.36 sec. Dropped beats and Wenckebach phenomenon were occasionally noted. Salicylates were finally stopped on April 23, 1945, after seven weeks of observation. His pulse varied from 60 to 80 and on May 20 he was allowed up because the only sign of activity was the partial A-V block and this had been present as the only objective sign for over two months. Further, no symptoms had appeared for a month after the omission of salicylates. Within a week, on May 28, his cardiac rate in bed had increased from 60 to 96, his temperature was 99.2°F., the B.S.R. had increased to 15 mm. per hour, and the PR from 0.22 to 0.28 sec. It was felt that these changes indicated continued rheumatic activity and he was returned to bed and transferred to a convalescent hospital.

Comment. This most interesting case illustrates: monarticular arthritis in rheumatic fever; subsidence of the B.S.R. in six weeks despite continued partial A-V block; recrudescence upon physical activity after the B.S.R. had been normal for two months, salicylates omitted for one month, and all signs of activity absent except for a PR of 0.22 to 0.24 sec. In this case, the slightly prolonged PR interval must be interpreted as indicating residual rheumatic activity. Unfortunately, final observation was not possible.

SUMMARY

The electrocardiogram is of major value in the diagnosis of rheumatic fever, in determining the presence of a polycyclic course, and in detecting subclinical recrudescences when the patient is allowed up. The electrocardiographic abnormalities represent the most common manifestation of carditis in adult rheumatic fever and enable one to identify obscure arthralgia or other poststreptococcic illness as rheumatic fever. These manifestations, in 95 per cent of the cases, are partial heart block and significant T wave changes. The recent work of Rantz and his associates,[2,3] and of Watson and his associates[4] has shown that following hemolytic streptococcic respiratory infections, some patients have the classic type of rheumatic fever. Others, however, have minimal or atypical manifestations of illness which were shown to be associated with electrocardiographic abnormalities indistinguishable from rheumatic fever. In clinical practice one sees such atypical cases, and frequent electrocardiograms are of inestimable value in determining the true significance of the clinical manifestations.

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The Differential Diagnosis of Adult Rheumatic Fever and Rheumatoid Arthritis*

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THE differential diagnosis of rheumatic fever and rheumatoid arthritis is said to be easy. But this refers to textbook cases which do not always occur in practice. As a matter of fact, experience during the last war has stressed the difficulties encountered in the differentiation between these two diseases. The importance of carditis in the diagnosis of rheumatic fever[1b] cannot be over-emphasized. However, it has been long recognized that in adult rheumatic fever signs of carditis may be entirely absent or of such a fleeting nature that they are overlooked. For example, of a series of 415 cases of adult rheumatic fever, definite carditis could not be demonstrated in 40 per cent, despite frequent electrocardiographic and other studies.[6] Failure to demonstrate carditis, then, may be one reason for diagnostic difficulties.

Rheumatoid arthritis with its prodromal constitutional symptoms, followed by an insidious onset and slow progression of joint manifestations is an easily recognized entity. But the type of rheumatoid arthritis causing the greatest diagnostic confusion does not fulfill the classic description. As many as 10 per cent of the patients admitted into army centers for rheumatic fever were later found to have chronic joint disease clinically similar to rheumatoid arthritis.

It is currently believed by most American workers[1,3,9] that these cases are examples of the acute, "atypical" form of rheumatoid arthritis. With its sudden onset this type of rheumatoid arthritis may be of varying severity and it may or may not be followed by a symptomatic remission. If observed long enough, these patients will usually show frequent recurrences or exacerbations and sooner or later will merge into the more characteristic clinical picture of rheumatoid arthritis. The development of chronic arthritis following an initial illness which simulates rheumatic fever is one reason for the opinion[4,7,8] that rheumatoid arthritis may be a residue of and secondary to rheumatic fever. However, the common pathogenesis of these two diseases has never been established. Nor is it likely that such a controversial concept can be definitely accepted or rejected until the etiology of both diseases is known. In the meantime we may regard these as separate entities and every effort should be made clinically to differentiate between them. The prognostic and therapeutic implications of early, accurate diagnosis are all too clear.

It would appear, then, that the problem at hand resolves itself into how one may distinguish between adult rheumatic fever without carditis and acute, atypical rheumatoid arthritis. It is this question that the following study has attempted to answer. A clinical comparison has been made of patients who, admitted into Army Service Forces rheumatic fever centers, were later discharged with a diagnosis of either rheumatic fever or rheumatoid arthritis. For this purpose the selected rheumatic fever patients have been limited to those with evidence of carditis, either permanent or transitory, and exclusive of the transient systolic murmur. For comparison only those cases of rheumatoid arthritis showing characteristic joint x-ray findings have been included. While these findings are not thought of as prerequisites for correct diagnosis, they are sound and objective diagnostic criteria upon which a comparative study such as this must be based. Two hundred fifty-two patients with rheumatic fever and with significant carditis, as defined above, have been compared with thirty-three soldiers, who, admitted with a diagnosis of rheumatic fever, were later considered to have atypical rheumatoid arthritis with diagnostic x-ray changes. All patients were observed for from six to fifteen months. Significant similarities and dissimilarities between these two groups are now presented.

AGE RANGE OF PATIENTS

The average age of the patients with rheumatoid arthritis was 28.4 years, some four years older than that of the rheumatic fever patients. However, the age range, as well as the distribution of sex and color, was the same in both groups. The youngest patient in either group was 18 years. The oldest rheumatoid was 39 years old, while the oldest individual with rheumatic fever, a dental officer in his initial attack, was 45 years of age. A history of at least one attack of previous polyarthritis was obtained in 40 per cent of the rheumatic fever patients and in 57 per cent of the rheumatoids. The available data concerning their past illness were in most cases insufficient for proper diagnostic appraisal.

An incident of some significance was the antecedent sore throat or upper respiratory infection. (Table 1.) Seventy-two per cent of the rheumatic fever patients gave such a history seven to twenty-eight days before the onset of joint symptoms, while only 9 per cent of the rheumatoids gave a similar

Table 1.—*Antecedent Upper Respiratory Infection in Adult Rheumatic Fever and "Atypical" Rheumatoid Arthritis*

	RF	RA
Antecedent URI	81%	24%
7 - 28 days before onset	72%	9%
Less than 7 days before onset	9%	15%
No antecedent URI	19%	76%

* Read before the California Heart Association at the 75th Annual Session of the California Medical Association, Los Angeles, May 7-10, 1946.

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history. Fifteen per cent of the rheumatoids complained of a preceding upper respiratory infection within three days or less, while 76 per cent denied any such event. Both the antecedent respiratory infection and its time relationship with the onset of articular symptoms are worthy of attention.

Two hundred four, or 81 per cent, of the patients with rheumatic fever and all of those eventually diagnosed as atypical rheumatoid arthritis showed objective evidence of joint disease, including intra- or peri-articular effusions. In both groups of cases the initial joint symptoms were most often referable to one of the weight-bearing articulations, usually the knee or ankle with subsequent symmetrical, polyarticular involvement. Contrary to what might have been expected, the polyarthritis of adult rheumatic fever was migratory in only 37 per cent of those patients on whom adequate data were available, whereas in the remaining 63 per cent the arthritis was of a progressive nature in that the symptoms and signs, in previously affected joints, persisted for the duration of the arthritis. Among the rheumatoids the arthritis was always progressive. The average duration for the development of the polyarthritis of rheumatic fever was 6.4 days, while among the rheumatoids the development was considerably slower, an average of 19.1 days. At the climax of the polyarthritis the distribution of joint affection was the same in both groups, with small joint involvement of the fingers and toes in approximately one-half of the patients.

The remarkable effect of salicylates in rheumatic fever has been long recognized.[12] In adult rheumatic fever, however, one must distinguish between the subjective joint response to salicylates and the objective response, specifically the rate at which joint swelling disappears. It was not unusual for rheumatic fever patients to continue to experience joint pains for several months despite adequate salicylates. But joint effusions usually disappeared in a few days, and never more than 18 days, provided the patient was properly treated. And although a recrudescence of frank arthritis was not uncommon when salicylates were prematurely discontinued during signs of active disease, such an exacerbation was not observed among the rheumatic fever patients while adequate salicylization was maintained. Among those with rheumatoid disease, 91 per cent continued to show joint swelling for five weeks to several months, and in many cases there occurred an exacerbation or a progression of frank arthritis despite intensive salicylate therapy.

JOINT DEFORMITIES IN RHEUMATOID PATIENTS

Residual joint deformities, manifested chiefly by periarticular thickening, usually in the wrist, knee or ankle were observed in 63 per cent of the rheumatoid patients. In none of the patients with rheumatic fever could definite, residual joint deformity be demonstrated. Transient limitation of joint function and local muscle atrophy were occasionally seen in rheumatic fever convalescents. These were probably due to improper mobilization and were easily corrected.

Chorea and subcutaneous nodules are frequently mentioned in differential diagnosis, although they are rarely found in adult rheumatic fever. However, nodules should be sought for and biopsied, especially in the event of a diagnostic problem. The histologic picture may determine the rheumatic or rheumatoid nature of the disease.[2] Nodules were recorded in two rheumatic fever patients, and in one rheumatoid. No case of chorea was observed in the presence of active carditis. Erythema in one or another of its many forms occurred in 7 per cent of the rheumatic fever group, while it was never observed in association with rheumatoid arthritis. The degree of fever, leukocytosis and/or anemia was not helpful in differential diagnosis. Signs of purpura, most commonly in the form of epistaxis, were observed in 22 per cent, while pulmonic changes occurred in association with rheumatic fever in 8 per cent of the cases. Only one patient with rheumatoid arthritis experienced spontaneous nose-bleeds, while neither pleurisy nor pneumonitis was ever observed.

A significant difference in the duration of the abnormally elevated sedimentation rates was noted. (Table2.) While the average period of high sedimentation rates was approximately ten weeks among the rheumatic fever patients and 25 weeks among the rheumatoids, this contrast was even more striking when broken down further. Of the rheumatic fever group, 33 per cent showed a normal sedimentation rate four weeks after the onset of the disease; 61 per cent were normal within eight weeks. Of the rheumatoids, only one showed a normal sedimentation rate at the end of the eighth week, and the majority continued to have a high rate for several months thereafter.

TABLE 2.—*Elevated Sedimentation Rates in Adult Rheumatic Fever and "Atypical" Rheumatoid Arthritis*

Duration	RF	RA
Average	9.9 weeks	25.3 weeks
Elevated 1 - 4 weeks	33%	0
Elevated 5 - 8 weeks	28%	3%
Elevated 9 - 12 weeks	16%	17%
Elevated 13 - 24 weeks	16%	37%
Elevated more than 24 weeks	7%	43%

It had been hoped that valuable aid in differential diagnosis might be derived from the antistreptolysin titer. The results were disappointing, chiefly because 60 per cent of the rheumatic fever group showed normal titers* while as many as 22 per cent of the rheumatoids were abnormally high. Elevated antistreptolysin titers in acute rheumatoid arthritis have been previously described.[7]

BONE AND JOINT X-RAYS

Bone and joint x-rays were normal among the rheumatic fever patients except for transient osteoporosis, which was observed in a few cases whose course had been marked by multiple recrudescences

* It should be noted that the initial titers were not obtained before the sixth week of the disease in most cases.

of arthritis. The rheumatoid changes consisted chiefly of demineralization and joint narrowing. In this connection, it is well to remember that joint x-rays in rheumatoid arthritis may be entirely normal for months to years following the onset of the disease. Of great interest was the discovery that 39 per cent of the cases of rheumatoid disease showed significant changes in the sacro-iliac joints indicative of early rheumatoid spondylitis or so-called Marie-Strumpel disease. It has been recently shown that the spinal fluid protein in this type of case is often elevated.[10] Spinal fluid examination was done in seven such patients, of whom five showed normal values and two showed a protein concentration of 80 and 99 mg. per cent respectively. Spinal punctures performed on ten patients with rheumatic fever failed to show any increase in the spinal fluid protein. In the presence of symptoms and signs of rheumatoid spondylitis, an elevated spinal fluid protein may verify such a diagnosis despite the absence of positive x-ray findings and thereby assist in differential diagnosis.

The importance of carditis in the differential diagnosis of rheumatic fever and rheumatoid arthritis has been mentioned. However, neither the absence nor presence of cardiac involvement should necessarily determine the final diagnosis. It has been previously pointed out that carditis in adult rheumatic fever is not demonstrable in a significant percentage of cases. Occasionally one encounters carditis in association with rheumatoid arthritis. Often the two diseases coexist, either in the combination of rheumatoid arthritis and superimposed active rheumatic fever, or rheumatoid arthritis and inactive rheumatic heart disease. The latter was believed to be the case in four of the patients showing x-ray signs of rheumatoid arthritis. The proper differential diagnostic appraisal of such patients must rely to a great degree on the bahavior of the arthritis, as well as other clinical features.

It is said that differentiation between rheumatic fever without carditis and rheumatoid arthritis may be impossible. However, this should apply chiefly to those cases in which the joint manifestations subside in a few days. In such examples of atypical rheumatoid arthritis one cannot make an early unequivocal diagnosis. This must await prolonged follow-up studies. But in many cases of atypical rheumatoid arthritis an early, positive diagnosis can be made. On the basis of observations already recorded in this paper, the differential points listed in Table 3 should be most helpful toward this end. The following features are emphasized:

1. Carditis, when present, usually indicates rheumatic fever although not necessarily so.

2. The arthritis of atypical rheumatoid disease is apt to be progressive and not migratory, while in adult rheumatic fever it may be either progressive or migratory.

3. The progression of the arthritis may be slower in rheumatoid disease than in rheumatic fever.

4. Unlike rheumatic fever, the antecedent upper respiratory infection is infrequent in rheumatoid arthritis, and when it does occur the latent period is usually significantly shorter.

5. The therapeutic ineffectiveness of salicylates and their failure to halt further progression characterizes their action in rheumatoid arthritis. In rheumatic fever, the objective joint improvement is dramatic with the proper administration of salicylates, which exert an equally effective prophylaxis against recrudescences of frank arthritis.

6. Erythema, purpura and signs of pulmonary or pleural involvement should favor the diagnosis of rheumatic fever.

7. The elevated sedimentation rate of rheumatoid arthritis continues for a prolonged period, while in most cases of rheumatic fever it is of comparatively short duration.

With these points in mind, many if not all of the atypical rheumatoid arthritis cases which were mistakenly admitted into rheumatic fever centers might have been correctly diagnosed within a few weeks or days rather than months following the onset of the disease.

TABLE 3.—*Most Helpful Differential Diagnostic Features*

	Adult RF	"Atypical" RA
Carditis	Often present.	Usually absent.
Arthritis	Progressive or migratory, faster in its evolution; no objective residue.	Usually progressive, slower in its evolution; residue common.
Antecedent URI	Usually present with longer latent period.	Usually absent; shorter latent period.
Effect of Salicylates	Prompt improvement of objective joint findings; protects against joint recrudescences.	May be totally ineffective.
Erythema	Often present.	Not observed.
Purpura	Often present.	Rare.
Pleurisy	Often present.	Rare.
Pneumonitis	Often present.	Not observed.
Elevated Sed. Rate	Usually of shorter duration.	Usually over prolonged period.

SUMMARY AND CONCLUSIONS

1. A comparative study was made of 252 soldiers with active rheumatic fever with carditis and 33 soldiers with acute, "atypical" rheumatoid arthritis with diagnostic joint and x-ray changes.

2. The most helpful differential diagnostic features have been outlined.

3. It is concluded that accurate and relatively early differentiation between adult rheumatic fever with or without carditis and atypical rheumatoid arthritis can be accomplished in a significant number of cases.

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Public Measures for the Control of Rheumatic Fever in England

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During the 17th century rheumatism affecting the body and multiple joints was first distinguished from gout which had previously been confounded with it. In 1676 Thomas Sydenham gave the first full clinical description of acute rheumatism and said that it chiefly attacked young people. Some years later he also described chorea, which was for a long time called Sydenham's chorea. But it was not until about 1800 that it became recognized, thanks largely to David Pitcairn and Matthew Baillie, that rheumatism was a disease which commonly affected the heart. Then in France Corvisart in 1806 began to refer to carditis, and Bouillaud in 1835 to describe and stress the frequency of endocarditis in acute articular rheumatism. By 1845, a century ago, a big step was reached when Sir Thomas Watson could write in his textbook of Physic: "It is a curious circumstance that rheumatic carditis is sometimes the first step in the whole disease; the cardiac symptoms will sometimes, I mean, precede those of the joints; even by two or three days."

Towards the year 1890 the medical profession in England began to realize that in acute rheumatism (or rheumatic fever) the country was faced with a problem of great national importance as a common source of cardiac disease. The British Medical Association carried out a collective investigation not only into its clinical features but also into the distribution and social and environmental associations of the disease.

Cheadle, a London physician and pediatrician, published in 1889 his lectures entitled "The various manifestations of the rheumatic state," lectures in which he urged a wider view of rheumatism than that of a polyarthritis: that the carditis was the essential fact about it, and not the condition of the joints which might be minimal and was often overlooked. Public attention to the subject was drawn by Sir Arthur Newsholme who produced the first epidemiological survey, and by Sir George Newman with his report from the Ministry of Health—not forgetting the powerful appeals to the profession and to the authorities by Dr. F. J. Poynton. The first direct result of this aroused public opinion was the setting aside in 1926 by the London County Council (L.C.C.) of 60 beds at Carshalton to accommodate children under the age of 16 with rheumatic fever. At the same time the other features of a general scheme for controlling rheumatic fever among the children of London were initiated.

The London County Council Rheumatic Scheme

It seems best to describe the London County Council Rheumatic Scheme of control as it was in operation in 1938-39, before the second world war broke out.

1. *The Source of the Rheumatic Cases:*

There was already in operation by the L.C.C. a system of regular medical examination of all school children by school medical officers whose function was almost entirely diagnostic, and they became especially interested in the recognition of rheumatic manifestations among the children routinely examined. Then, general practitioners who in their practice found a child suffering in this way, were invited to communicate with the central office or supervisory center if the parents were willing for the child to be moved to hospital. These supervisory centers, to be described later, were also the source of many cases, chiefly relapses, among those already under their regular supervision. Lastly, most general hospitals, as well as children's hospitals in and around London, were glad to free their beds of some children with rheumatic infection who needed longer hospital treatment than they could continue to give.

It became apparent that an intermediate examination by a medical referee was necessary between the application for admission to hospital and the

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actual acceptance and transfer as a suitable case. The referee was usually a physician in charge of a local supervisory center and often he (or she) was on the staff of a hospital in the neighborhood. It was the referee's place to exclude children with cardiac failure added to carditis, and such were transferred to a general or children's hospital in London itself. The other reasons for exclusion might be evidence of a congenital and not of a rheumatic heart affection, incidental murmurs in another kind of general infection, and so on, outside the rheumatic province. The form of application having been accepted at the central bureau, and the patient approved by the medical referee, the child was then transferred by ambulance 20 miles to Carshalton or one of the other similar though smaller institutions in the country.

This short account clearly applies to London only, and it must be admitted that there has been evolved a most comprehensive scheme. Some other cities, however, have provided similar schemes including hospital schools. Bristol, for instance, will be remembered in this direction and largely because of the pioneer work of the late Dr. Carey Coombs.

2. *Institutional Treatment:*

At Queen Mary's Hospital, Carshalton, the hospital school now provided many more beds, and with other smaller centers, the available beds provided by the L.C.C. numbered 900 in 1938. In addition, the hospital school at West Wickham early established by a voluntary organization — the Invalid Children's Aid Association—had grown until it provided for a further 100 children, making accommodation for 1,000 in all.

These institutions are more than convalescent homes and the name Hospital School describes them best. They have country surroundings with large open air terraces alongside the wards on to which the beds can be easily run; and it is the custom to carry out what is in fact open-air treatment, except in the most severe cases. Experienced medical officers have formed the opinion that if the children are warmly clad there is no additional risk of infection or chill, that appetite is quickened and sleep is sounder at night.

In severe carditis great stress is laid on complete immobility so that ample nursing facilities are essential. As grades of convalescence are reached, so movement is less restricted until later there are few restrictions and the children play in the grounds. From the beginning of convalesence, the teachers appointed by the Ministry of Education give daily lessons and school rooms are provided for those sufficiently recovered. The teachers live not far from the hospital. The education of rheumatic children is of great ultimate importance apart from the fact that the lessons pass the time so agreeably. It is to be remembered that eventually they should be fitted for some kind of sedentary work and, for this, education is at least as important as in healthy children. Moreover, proper pride in feeling trained for normal employment would later enable a child to extricate himself more easily from the invalidism apt to accompany and follow the active disease. It is inseparable from the special purpose of these hospital schools that there must be a long stay in hospital, often weeks or months in bed followed by a prolonged convalescence under supervision. The usual length of stay is from six to twelve months.

3. *Supervisory Centers:*

These were 20 in number and formed an integral part of the plan. They were distributed through London including the most thickly populated areas, and ten of them were organized at the out-patient departments of large hospitals. If no suitable accommodation existed at a hospital nearby, a house or building was adapted for the purpose and a special staff was appointed by the L.C.C. The medical officer in charge, usually of consultant status, was in control year after year. A nurse and a social worker were in attendance, and an almoner was deputed to visit the patients' homes and make their observations upon them. The purpose of these centers can be enumerated as periodical supervision especially of patients discharged from the hospital schools, diagnosis in cases referred to the center, instruction in child welfare to the parents of the children, and of others in the neighborhood. Simple pamphlets were distributed, and personal advice was given and passed on to the schools.

The important decision was taken whether the child should be educated at a physically defective (P.D.) school with its advantage of special control and ambulance transfer to and from school, or at an ordinary school with ampler opportunity for exercise. In either case liaison was established with the school medical officer.

The center was not intended for treatment, but it arranged where necessary for treatment at an out-patient department of a general or a children's hospital, unless of course a recurrence required the return of the child to the hospital school. After school age, young people with permanent valvular affections were transferred to an ordinary hospital out-patient clinic. Suitable employment was arranged by voluntary health societies such as the After-Care Association.

4. *Central Organization:*

The central bureau was situated at the L.C.C. Headquarters on the Thames. There the whole scheme was controlled by the Supervising Medical Officer. He was responsible for the rheumatism register of medical records and for a card index of all the rheumatic children, past and present, who had been accepted at any center or hospital school. In 1938 this registered 22,800 children up to the age of 15 in London who were suffering or had suffered from rheumatic infection. It represented an incidence of about 2.6 per cent of the child population.

It may be noticed that I have made no mention of official reporting or notification of acute rheumatism. This was never adopted as part of the

plan, except in an experimental way. In three London Boroughs and in certain provincial cities it was made officially notifiable, and the experience gained thereby is likely to be of interest now that the question of universal notification must come under consideration.

THE WAR PERIOD

When war began in 1939, there was a steady exodus of children of school age from London and other big cities which reached a stage almost of compulsion when bombing became a matter of fact, and not simply of its anticipation prompting precautionary measures. It was hoped that the hospital schools might be maintained, but as time went on and the bombing area extended, they had to be vacated. Children remaining at the largest hospital home, Carshalton, were transferred with others to a special hospital in the North of England.

When the war ended and children were once again seen in the streets of London, the L.C.C. and the school authorities were at first under great difficulties because of the distressed home conditions and the reduction by bombing of the schools available. Further, many teachers had not returned from the war. Medical officers were similarly slow in returning, but gradually there has begun a revival of the system of recognition and control of rheumatic fever as outlined above.

PLANNING FOR THE FUTURE

The passing of the New Health Act will have a profound effect upon the future solving of the problem of rheumatic fever. The whole of the health services and all the hospitals in the country will come under the control of the Ministry of Health in 1948, and 14 regions have been demarcated. They will be administered by Regional Councils each working as far as possible from a main University Center. Teaching hospitals retain more autonomy than others. Already the significance of this great change in the medical services of the country has been viewed from the standpoint of rheumatic fever.

Last year the President, warmly supported by the Royal College of Physicians, brought into existence a Rheumatic Fever Committee upon which are represented not only the College, but also the Ministry of Health, the University of London, the Medical Research Council, the London County Council, with cardiologists and pediatricians concerned in the problem. This body is at present consultative, but it is evident that in the immediate future it will take the initiative in planning for a resumption of schemes like the L.C.C. scheme, not only in London but in each of the regions into which the whole country has now been divided.

REPORTING (OR NOTIFICATION)

There are some who think that reporting should be in the forefront of any campaign against rheumatic fever because if a large number of cases is reported it will rouse public opinion and strengthen the demand for larger facilities. Most authorities, while agreeing that it is an essential, regard it as unlikely to succeed unless at the same time the whole scheme can be planned and set in motion. This may imply delay in issuing an order for compulsory reporting which should wait at least until there is hospital accommodation commensurate with the estimated total of reported cases. This is not a disease that can be left to swell a long waiting list! Meanwhile reporting may be applied to certain areas, as it has been both in England and in the United States, to provide information on its advantages and difficulties. In England it may prove that the difficulties are lessened by the introduction of a National Health Service. We shall think, I trust, not of larger statistics, but of ampler provision for all cases notified. Compulsory not voluntary notification is ultimately a necessity for public health control of rheumatic fever.

It is true that the L.C.C. register fulfilled to some extent the purpose of notification or reporting as it is termed in the United States. But it did not affect the primary sources in daily medical practice, for it was left almost entirely to the personal interest and choice of the general practitioner to decide whether to avail himself of the facilities provided or not. The essential is to convince or satisfy him that adequate facilities exist and are in operation, and that his cooperation is necessary for early diagnosis not only of frank rheumatic fever, but also of the more difficult even doubtful rheumatic manifestations. It is only reasonable that such particular work should have proper remuneration, and that it should be supported by easy reference to a specialist consultant. He should be available to be called to the patient's home for verification of the diagnosis, and if this is confirmed as ground for action, to quicken the transfer direct by ambulance to the hospital school in the country.

HOSPITAL ACCOMMODATION

The provision of sufficient beds for long-term treatment of rheumatic children seems to be the most urgent, and the most difficult, of the problems facing those who champion this great cause. At least it is as important as the provision of more hospital beds for adults to meet the unsatisfied demands of the people—a need in the United States as in England. After careful planning must come vigorous action on the part of all Heart Associations and similar bodies or the object will never be achieved. Such action is now in progress in the United States, as I know, and we in England expect that the priority next to provision of homes will be the provision of more hospitals. These must include hospital schools for rheumatic children wherever there is need for them, and the need is great.

EDUCATION OF PERSONNEL, AND RESEARCH

The early recognition and the whole management of rheumatic fever call for a considerable increase in the number of those trained for this

special task. Some of the larger hospital schools will become natural centers for the training of medical men who are prepared to devote some years at least to this subject. The training of nurses is equally important. Postgraduate instruction will naturally find a place in these specialized institutions, and valuable experience will be gained.

It is fortunate that through the benevolence of the Canadian Red Cross Society we have an opportunity in England to make use of a large hospital at Taplow for the formation of such a center. It served Canadian troops during the war and it is ideally situated in the country. The Ministry of Health has agreed to found there a hospital school of 200 beds for rheumatic children which will become a main center for treatment and research, and where doctors, nurses, and auxiliary helpers can be trained in preparation for extension of modern rheumatic schemes in different parts of the country.

Summing up, my personal view is that the most important features of a sound scheme of national control would be: (1) early diagnosis of rheumatic fever and early transfer; (2) provision of ample beds in hospital schools; (3) supervision during school age and after; (4) training of personnel, and (5) research on rheumatic fever. Finally, we need scarcely be reminded that the success of all parts of these comprehensive plans depends more than anything upon personal feeling and determination. The history of public measures for the control of rheumatic fever is mainly a history of individuals fully persuaded of the need and quite determined to awaken the public, the medical profession, and the authorities to the importance of the problem—and to work hard at it themselves. If a similar spirit actuates those who participate in any branch of the scheme, it cannot fail in due course to accomplish its great purpose.

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Rheumatic Fever Control Program in California

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RHEUMATIC fever and rheumatic heart disease are the leading causes of death in the age group 5-15 years and account for 25 per cent of all deaths due to heart disease.

Although our knowledge in the prevention, in the pathogenesis and development, in the diagnosis and in the treatment of rheumatic fever and rheumatic heart disease is incomplete, it is considerable and it is growing. Enough knowledge and public health techniques are at present available so that an effective attack upon the problem can be made.

Programs for the control of rheumatic fever, to be effective and enduring, must be clinical in approach and must offer tangible evidence to physicians that immediate benefit in terms of prophylaxis, detection and treatment is forthcoming to their patients. This will occur when such a program is medically controlled. The most comprehensive plan now in existence is the "London County Council's Rheumatism Scheme" which is described in this issue of California Medicine by Dr. John Parkinson.

In England, progress has depended in large part upon the extensive hospital facilities available there for the long-term care of children with rheumatic fever and rheumatic heart disease. In California, the nucleus of a rheumatic fever control program has been established. Its beginning consisted in the formation of the California Heart Association (1926) the function of which was then and is now to arrange postgraduate education in heart disease for the physicians of this state. The interest of physicians and of the general public was stimulated by the rheumatic fever program (1941-1946) in Solano and Contra Costa counties. This was supported by the State Department of Public Health with funds made available by the Children's Bureau, and it resulted in the detection of over 300 cases of rheumatic fever and rheumatic heart disease, with provision for hospital and convalescent care for many of them. Meanwhile, yearly symposia open to all physicians in this and neighboring states have been held in San Francisco. Los Angeles and San Diego under the sponsorship of community heart associations. These functions have been correlated by the California Heart Association and assisted by the medical schools and leading hospitals of the respective areas with teaching ward rounds, clinical demonstrations and lectures. Many notable authorities have been brought to California as guest speakers to participate in these symposia, including Drs. T. Duckett Jones, Paul D. White, Tinsley Harrison, Arthur de Graff, Maxwell Wintrobe, Samuel D. Levine, John Parkinson and Helen Taussig. Speakers have been provided for local medical societies, auxiliary professional groups (teachers, social workers and nurses), and for interested lay groups, often sponsored by the California Congress of Parents and Teachers. In addition, scientific programs for physicians are conducted by the membership of the California Heart Association in connection with the annual meetings of the California Medical Association.

Heart Division of California Tuberculosis Association

In 1943, motivated by a common interest in securing adequate facilities in California communities for the control of heart disease, the Cali-

fornia Tuberculosis and Health Association joined forces with the California Heart Association in forming a Heart Division of the California Tuberculosis and Health Association. This Heart Division provides an opportunity for health education and community organization in the field of rheumatic fever and rheumatic heart disease, utilizing the type of medical leadership, skills, techniques, and financial resources which has been effective in the fight against tuberculosis. This type of affiliation now exists not only on the state level but also in San Francisco, Los Angeles and in some 15 other local associations throughout the state. It is supported by the sale of Christmas seals.

The heart divisions of the tuberculosis associations have taken responsibility for: (1) the stimulation of interest in the development of sanitorial and hospital beds for rheumatic children; (2) the provision of educational material to parents, teachers and community leaders; (3) the support of legislative measures toward improvement in the care of crippled children; (4) assistance to local health departments in establishing necessary services; (5) assistance to local school departments in establishing health services, and, (6) integrating the activities of health and welfare services in the community.

The State Department of Public Health has helped to prepare communities for rheumatic fever programs by providing public health leadership, by lending the services of cardiologists, pediatricians and social workers in the organization of clinics and services, by providing training in the field of rheumatic fever to local physicians and, finally, by taking financial responsibility for the institutional treatment of rheumatic children not otherwise provided for.

In the development of a rheumatic fever program in a community, all the agencies mentioned above have participated. Often, a committee of leading physicians including the local health officer has met under the auspices of the local tuberculosis association, to discuss the rheumatic fever problem, the needs of the local community, the standards for a diagnostic clinic, and the required ancillary services. Authorities in rheumatic fever, cardiac disease and in public health have appeared before county medical societies, public health departments, school health departments, and teacher groups. Public interest has been invoked by health education programs through the Heart Division of the local tuberculosis association. The State Department of Public Health has provided consultation services in medical and other professional fields. Five local rheumatic fever detection clinics are now in progress. These are in Contra Costa, Sonoma, Kern and Santa Barbara counties and in the City of Pasadena. Humboldt and San Diego counties are about to embark on similar programs. Other counties in California are beginning the work of preparing for rheumatic fever clinics.

CASE REGISTRIES BEING DEVELOPED

Case registries for rheumatic children are being developed in San Francisco and Los Angeles counties. Although rheumatic fever and rheumatic heart disease are legally reportable in California, an adequate definition of the magnitude of the problem must await complete and effective reporting on a state-wide basis. Thus, the importance of accurate registration is obvious.

Our greatest shortcoming in the program for the care of the rheumatic child in California today is the lack of hospital and convalescent facilities. Of course, this is not peculiar to the rheumatic fever problem. We must admit, however, that the overall significance of this problem, its probable amenability to control and the benefits to be derived from early diagnosis and adequate treatment, make the provision for the extension of needed facilities of paramount importance. Medical thinking and community planning are far in advance of therapeutic facilities. This, in a sense, is comparable to the tuberculosis picture in the early 1900's. The next steps are to provide beds and to make support for a rheumatic fever control program for California secure. This can be done only by legislative action which will provide funds to assist local communities when they have exhausted their own resources in developing programs and facilities. This has already been done for our children with cerebral paralysis.

On a state-wide basis, under medical leadership, and with the fullest cooperation among the various Heart Divisions, the California Heart Association and the State Department of Public Health, much has been done. More remains to be accomplished. Although the program is young and incomplete, it is already more comprehensive than any in other states. It is our hope that all Californians will join hands in strengthening all the means which have been and can be mustered to control childhood's greatest enemy, rheumatic fever.

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Diagnosis and Treatment of Arteriovenous Aneurysm in a Naval Hospital

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ABNORMAL communications between arteries and veins resulting from combat injury constitute a relatively infrequent but important problem in a Naval Hospital. The vessels of the extremities are the most frequent sites of traumatic arteriovenous aneurysm, although the large vessels of the neck, the sub-clavian region, and the aorta and vena cava may be involved. The viability of the affected limb and, at times, the life of the patient, depend on correct diagnosis and proper treatment of the lesion.

DIAGNOSIS

The diagnosis is not difficult and is contingent upon an adequate appraisal of local and systemic symptoms and findings.

Local Symptoms and Findings are definite and easy to elicit. There is a scar at the site of injury. Within a few months or less, compensatory enlargement of the involved limb is apparent. There is increased temperature of the involved area. The veins of the involved extremities become dilated. A bruit may be heard at the site of the arteriovenous communication. There is a pulsating expansile mass at the site of the fistula, and a thrill may be palpated. Pressure over the site of the fistula causes the thrill and bruit to disappear and results in a slowing of the pulse rate. The tributary veins to the fistula show a higher oxygen content than in other veins and conversely the regional arterial blood has a diminished oxygen content. Enlarged communications, pigmentation, ulceration, hemorrhage, and even gangrene of the extremity distal to the fistula may occur. Pain is an inconstant symptom. It is merely the result of pressure on nerves by larger fistulas.

Systemic Manifestations, although less obvious, are significant. Fall in blood pressure is an early effect. This results from an immediate decrease in the cardiac output, of peripheral capillary resistance and of the total volume of circulating blood. These early effects are identical to those resulting from any massive hemorrhage. Subsequently, compensatory reactions are evident. There is an increased rate of cardiac contractions with a resultant increase in the pulse rate, and increased filling of the right heart, and, therefore, increased output. The total blood volume is increased. The amount of the increase obviously is proportionate to the size of the arteriovenous fistula, as it is a compensatory phenomenon. Other factors influencing the cardiovascular dilatation are the duration



Figure 1.—Fragments of shrapnel causing femoral arteriovenous fistula.

of the fistula and its location in the arterial tree. The more proximal the fistula is to the heart, the greater the dilatation. Collateral circulation is stimulated and increases with time.

SURGICAL MANAGEMENT

The immediate treatment of the initial wound and site is within the province of the surgeon in the field of combat. The treatment is essentially that of hemorrhage, infection, and gangrene. The responsibility of the surgeon in the Naval Hospital resolves itself to the definitive care of the arteriovenous aneurysm. This report is concerned with this phase of the treatment.

Contrary to our previous conception, experience has shown that these cases may be operated upon safely within one to three months after the initial injury. In patients of the age group involved in the military service, adequate collateral circulation with the aid of compression will usually develop within this time. We have observed cases in which compression could not be tolerated for more than three minutes without distress in the involved extremity. These cases have, without exception, been able to tolerate 30 minutes' compression, twice daily, at the end of 30 days without pain. We have had no untoward experience following surgery when this routine has been followed. It is, of course, necessary to delay operation until edema, infection and local hematoma have subsided.

A number of operative procedures have been carried out in the treatment of arteriovenous fistula. Closure of the fistula with restoration of the artery and vein carries considerable risk and is only rarely possible. Preservation of the artery and vein with repair of the fistula in the artery wall sacrificing the vein, is too frequently attended by embolism and arterial aneurysm. Ligation of

Note: The opinions and views set forth in this article are those of the writer and are not to be considered as reflecting the policy of the Navy Department.

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the communication of the canal is rarely possible. Ligation of the artery and vein proximal to the fistula is a compromise and not a cure. Ligation of the proximal and distal artery is followed by a high percentage of recurrences as collaterals re-establish the communication. Ligation of the proximal artery alone is contraindicated because of the high rate of gangrene and ischemia. Ligation of the proximal vein alone may be used as a palliative life-saving procedure in cases of cardiac decompensation incident to arteriovenous fistula. It is not a cure. Closure of the fistula by triple ligation and twisting of the proximal vein may be used in high carotid arteriovenous fistulae. Quadruple ligation without excision and endoaneurysmorrhaphy is usually successful if all incoming branches are ligated.

The operation of choice, we believe, is quadruple ligation with excision of the arteriovenous fistula. If the artery and vein proximal and distal to the fistula are exposed and fixed with unbilical tapes before resection of the aneurysm is carried out, danger of serious hemorrhage is precluded. We recommend daily compression of the fistula beginning with three minutes and working up to 30 minutes twice daily. This can usually be accomplished without distress within 30 days. We realize that this procedure is possibly unnecessary in young individuals with adequate collateral circulation. However, the cases in which we have followed this procedure have not required sympathectomy to insure the viability of the limb. We therefore consider it a wise precaution. Chart I reports six consecutive cases treated by this method with entirely satisfactory results. Figures 1, 2, 3, 4 and 5 are taken from this series of cases.



Figure 3.—Resected femoral arteriovenous fistula with false aneurysms.

PHYSIOLOGIC EFFECTS FOLLOWING RESECTION OF ARTERIOVENOUS FISTULA

The immediate effects of obliteration of the fistula are: a transient rise in general blood pressure followed almost immediately by a fall to a lower level, a marked immediate slowing of the pulse rate, a decrease in venous pressure proximal to the fistula, and a marked decrease in cardiac output. The remote and permanent accomplishments are: gradual readjustment in the general blood pressure with decreased pulse pressure, a decrease in the total blood volume, a recovery to a normal pulse rate, and subsidence of dilatation of the heart and of the proximal artery and vein. In other words, the cause of the manifestations of over compensation, namely, the arteriovenous aneurysm has been eliminated.

CHART I

Case	Sex	Age	Location of Fistula	Operation	Result
1	Male	21	Left posterior tibial	Quadruple ligation and resection	Good
2	"	32	Left popliteal	"	"
3	"	20	Right femoral	"	"
4	"	24	Right femoral	"	"
5	"	23	Right femoral	"	"
6	"	19	Left brachial	"	"



Figure 2.—Resected, arteriovenous fistula of femoral artery and vein with false aneurysm.

CONCLUSIONS

1. Six cases of traumatic arteriovenous aneurysm treated by quadruple ligation and resection with good results are reported.

2. Sympathectomy was not necessary in cases in which the fistula was compressed daily for 30 days before surgery to give added stimulus to collateral circulation. This procedure seems to be a well-advised precaution.

3. Resection of the fistula should be carried out three months or less after the initial injury. This minimizes such untoward compensatory manifestations as marked cardiac enlargement and deforming hypertrophy of the affected extremity.

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Figure 4.—Cardiac enlargement incident to femoral arteriovenous fistula.



Figure 5.—Subsidence of cardiac enlargement following resection of arteriovenous fistula—same case as in figure 4.

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Fractional Spinal Anesthesia For Short Upper Abdominal Surgery

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LEMMON'S method of spinal anesthesia has been variously called continuous or fractional, depending upon which aspect is emphasized. The continuous feature permits prolongation of anesthesia for long periods of time. The fractional feature enables the breaking of dosage to avoid large doses at any one time. It is the latter feature which is to be emphasized here in regard to high spinal anesthesia.

By a high spinal is meant the anesthetic in use for surgery of the upper abdomen. There has been more discussion of this type of anesthetic than of the less dangerous lower abdominal anesthetics. Credit must be given to Sise, Hand and Eversole for the glucose method of localizing the anesthetic agent against upward spread. However, they do not deny the dangers inherent in this method. The purpose of this discussion is to suggest the use of the fractional method for this type of surgery in an effort to develop control over the high spinal and thus eliminate some of the risk.

In general anesthesia, warning signals of overdosage are abundant, well understood, and time is available for stopping of further administration of the anesthetic agent before further damage is done. On the other hand, in spinal anesthesia the dose, once given, is irreversible and the reaction that occurs may be almost instantaneous. It is therefore logical to seek a method of divided spinal doses. It is most urgently needed in upper abdominal surgery because the area of cord anesthetized is also the area from which respiratory and vasomotor nerves arise.

Therefore, it would seem safer to begin such an anesthetic with a minimal dose of 100 mg. novocaine or its equivalent, and add to it only when and if the condition of the patient warrants and if anesthesia is insufficient. Thus we escape the unpleasant dilemma of either giving one large, possibly dangerous, dose, or running the possibility of a failure of anesthesia and a switch to some other form of anesthetic.

That the minimal dose of 100 mg. of novocaine will often give sufficient anesthesia for upper abdominal surgery is known, as many of us have observed the anesthesia creeping up to the costal margin during a pelvic operation, and cholecystectomies have been performed without additional anesthetic on erroneously diagnosed appendicitis cases. Of course this dosage will not be sufficient in all cases, and the fractional method allows the addition of 50 or 75 mg. doses as needed.

It has been found in using the fractional method in upper abdominal surgery that fewer reactions occur. We use it in gallbladder and spleen surgery as well as in the more commonly indicated stomach surgery. The only possible risk in the method might be in the hands of the inexperienced who might fail to remember the cardinal purpose of this anesthetic, which is to avoid overdosage. The fractional method does require considerable experience and dexterity and should not be considered a method for the occasional anesthetist.

With the fractional method, relaxation has been good and closures have been facilitated. Originally we used the method only for prolonged cases such as gastrectomies or abdominoperineal resections, but now it is used with advantage in gallbladder, spleen, and less prolonged stomach surgery. Experience has given grounds for suggesting this additional indication for the fractional method.

The malleable needle technique is used. The syringe usually contains 200 mg. novocaine, and 20 mg. pontocaine, dissolved in 10 cc. isotonic saline solution. This is a 4 per cent solution, considering pontocaine as ten times the strength of novocaine. Ephedrine, 48.6 mg. (¾ grains) is used one half hour before surgery and repeated at the time of giving the spinal agent. The original dose is two and a half cubic centimeters, equaling 100 mg. of novocaine or its equivalent. Slight barbitoge may be used. There have been no complete failures of anesthesia, and in the few cases in which there was partial failure; switch was easily made to gas anesthesia (cyclopropane usually) or pentothal.

CONCLUSION

1. Increased controllability of high spinal anesthesia is desirable in order to gain added safety.

2. The fractional method offers increased controllability.

3. The fractional method is indicated in gallbladder and other upper abdominal surgery, regardless of the time duration factor.

CASE REPORTS

Case 1—Mr. J. M., 3942 St. Francis Hospital. Cholecystectomy. Age 49, weight 185 pounds. History of pain in the right upper quadrant for one year, unrelieved by medication. The patient had had a herniorrhaphy in 1944 under spinal and developed postoperative pneumonia. There was no such complication in this surgery which was performed under fractional spinal. The initial dose was 8 mg. of pontocaine in glucose. This first dose was given in a separate syringe in order to use a different drug for induction of anesthesia than for its continuation. A second syringe contained the additional dosage of 100 mg. novocaine and 10 mg. pontocaine in normal saline to equal 5 cc. This is a 4 per cent solution. The original dose was adequate until closure when 1 cc. (40 mg.) was added, giving good relaxation. Pentothal 1.0 gram was given for discomfort during traction. Time was one hour and forty-five minutes. The blood pressure began at 120/80 and rose to 140/80

where it remained throughout. The patient was dismissed ten days after the operation.

Case 2—Mrs. H. C., age 48; 4536 St. Francis Hospital. Common duct exploration. History of upper abdominal pain unrelieved by previous cholecystectomy. Surgery was performed under fractional spinal. The original dose was novocaine 100 mg. and pontocaine 2 mg. The exploration was thorough and surgery lasted three hours. Later additions of anesthetic totaled 200 mg. of novocaine-pontocaine solution, and pentothal, ¾ gram, was used to relieve discomfort during traction.

This patient remained in good condition throughout. Her blood pressure at the beginning of surgery was 140/90 and dropped only to 130/80. There was no dyspnea or cyanosis. She remained in the hospital till the twelfth day for the purpose of obtaining x-rays, and has had relief from her symptoms since the surgery.

Case 3—Mrs. E. N., age 51; 4848 St. Francis Hospital. Exploration and colostomy. History of intestinal obstruction and abdominal pain. Surgery was performed under fractional spinal. Initial dose was novocaine 100 mg. and pontocaine 3 mg. Duration two hours and fifteen minutes. Additional dosage of 75 mg. novocaine-pontocaine. In this case, instead of the suspected carcinoma, endometriosis was found which so narrowed the bowel lumen that a colostomy was necessary. The patient's condition was good throughout. Her blood pressure at the beginning of surgery was 120/80. It dropped to 105/70, but quickly rose to 140/90. She was dismissed from the hospital on the eighth postoperative day.

Case 4—Miss A. R., age 20; 15022 French Hospital. Purpura Hemorrhagica. Splenectomy was performed under fractional spinal. Initial dose was 110 mg. novocaine-pontocaine. Anesthesia was satisfactory for opening abdomen. Then insufficient relaxation was encountered, and no response was obtained by additional injections of spinal anesthetic. The malleable needle had become displaced and required adjustment to obtain a flow-back. However, in order to avoid delay, a light plane of cyclo-propone anesthesia was begun. Anesthesia was then satisfactory and the patient's condition remained good throughout. Bleeding was heavy, and two blood transfusions were administered, one in surgery and the other (500 cc. each) in the room. The blood pressure was entirely satisfactory, remaining at 120/80 throughout the surgery. The patient was dismissed 15 days after the operation.

Case 5—Mrs. F. M., age 38; French Hospital. Surgery was done under fractional spinal. The gallbladder region, including the entire abdomen was explored, with negative findings. The appendix was removed. The original dose of 120 mg. novocaine-pontocaine sufficed for this procedure, which lasted one hour. Convalescence was uneventful except for slight postspinal headache, and the patient was dismissed on the tenth postoperative day.

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Poison Oak — New Antigens and Their Effect On Sensitized Patients

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THREE new poison oak antigens, designated as Antigens No. 95, No. 62 and No. 12 respectively, and prepared according to methods described in a previous paper,[2] were administered to patients in order to compare their prophylactic as well as their therapeutic action. They were used both orally and parenterally. The oral administration was used to study their prophylactic affects, while both affects were studied when the antigens were given parenterally.

Patch testing with a standardized skin testing solution both before and after treatments was one of the methods used to determine the amount of immunity developing following the use of the three antigens. Technic: .01 cc. was applied to the flexor surface of the forearms under patch (Elastopatch, Duke). The patch was removed in 24 hours and the reactions read in 48 or 72 hours. The reactions were recorded as follows: negative; one plus (erythema, mild); two plus (erythema, more intense); three plus (erythema, intense, and with some edema); four plus (erythema, intense, with edema and vesiculation).

Antigen No. 95 (containing lobinol, the vesicant fraction) proved to be efficient when given orally but was much less so when given parenterally. (This finding is in agreement with Shelmire's[1] experience with potent poison ivy antigens.

Antigen No. 62 (containing all of the fractions excepting the vesicant) was quite efficient when given parenterally but much less so when given by mouth.

Antigen No. 12 (containing the water soluble fraction) was of some value when injected but had practically no effect when given by mouth.

PROPHYLACTIC EFFECTS OF THE ANTIGENS

By Mouth: Antigen No. 95 was incorporated into tablets, each tablet containing 2,500 Dermatitant Units;[3] and into capsules, each capsule containing 5,000 Dermatitant Units. It was prepared in this manner so as to protect the mucous membranes of the mouth and esophagus from the irritating effects of the vesicant. Patients were given two tablets per day for one month, then two capsules per day for two months, without interruption, unless some untoward symptom appeared. Thirty days after the last dose, a second patch test was made. There was considerable improvement noted in the patch test readings in most of the patients receiving this antigen by mouth. While none of the patients so treated became negative to the patch test, most of the 4 plus and 3 plus patch tests were reduced to 2 plus and 1 plus reactions and many patients who previously had been very susceptible to poison oak dermatitis volunteered the statement that they enjoyed comparative immunity for the first time.

Some of the annoying symptoms experienced by patients while taking this antigen were (a) pruritus ani and pruritus valvae, (b) mild generalized pruritus and (c) edema of the eyelids. These symptoms rapidly subsided as soon as the treatment was stopped. A few days later the treatment could usually be resumed by beginning with one-half of the disturbing dose, then gradually increasing it until the course was completed.

Antigen No. 62 and Antigen No. 12 were also incorporated into tablets, each tablet containing one milligram of solids. Patients were given two tablets per day for three months. There was some reduction in the intensity of reactions to the patch tests in those patients receiving Antigen No. 62, but none in those who received Antigen No. 12.

By Intramuscular Injection: Preliminary tests with the three antigens, administered by this route to patients, clearly indicated that Antigen No. 95 was the least efficient of the three in reducing the patch test reactions, so the following prophylactic study was made using Antigen No. 62 and Antigen No. 12.

A boys' club in San Francisco which has a summer camp in Bonneville, Mendocino County, had such a poison oak problem each summer that the author was invited to immunize volunteers prior to their departure for camp in the summer of 1945. The summer camp enrollment consisted of 185 boys between the ages of 6 and 16. One hundred and four volunteered for the preliminary patch test. (The patch test solution used was not strong enough to cause a reaction in an individual who had never been exposed to poison oak contact, but it was of sufficient potency to elicit a reaction in skins which had been already sensitized.) Of the 104 who volunteered, 49 (47.1 per cent) gave a positive reaction of varying degrees and 55 (53.8 per cent) gave negative readings. (Table 1.)

The 49 poison oak sensitive boys were given prophylactic injections of 1 cc. of the antigen intramuscularly every fourth day for four injections. Twenty-three boys (46.9 per cent) received Antigen No. 62 in oil (1 cc. contained 10 mg. of solids) and 26 boys (53 per cent) received Antigen No. 12 (1 cc. contained 10 mg. of solids). An attempt was also made to divide equally the number of 1, 2, 3, and 4 plus reactions receiving each antigen. Results of the patch tests made before injection, ten days after the fourth injection and 35 days after the last injection are recorded in Table 2. Of the 49 boys receiving the prophylactic treatments, 13 (26.5 per cent) developed poison oak dermatitis. Five of these had received Antigen No. 62 and eight Antigen No. 12. The nurses at the camp stated that none of these 13 cases suffered the tor-

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This paper is No. IV of a series. (References 2, 3 and 4.)

menting itch that usually accompanies the acute eruption.

Contrasting these statistics with those of the 81 boys who were at the same camp and who were not patch tested or given prophylactic treatment and in whom 44 or 54.3 per cent developed poison oak dermatitis, one could easily be led to believe that these two antigens had been of real help in protecting an otherwise susceptible group.

THERAPEUTIC EFFECTS OF THE ANTIGENS

Unfortunately, the facilities at the boys' camp had not been organized, either in equipment or personnel, to study the comparative effects of these antigens on the cases of acute poison oak dermatitis which developed there during the summer.

The following observations are personal ones made on some 30 volunteers suffering with acute poison oak dermatitis which the author treated himself during the course of a few months.

By Intramuscular Injection: Antigen No. 95 (1 cc. contained 10,000 Dermatitant Units of Lobinol). This antigen, as well as several of the commercial antigens on the market at present, contains the vesicant as the active principle. Many of the patients suffering from acute poison oak dermatitis who received this antigen were made worse. Several physicians with whom I have discussed this subject have had similar experience with this type of antigen and many have stated that they have stopped using them altogether in the acute cases.

Antigen No. 62 in oil. I have seen no aggravation of the eruption during the acute attack when this antigen was used. In a few patients, however, slight edema of the eyelids occurred during the course of injections. In general the symptoms subsided more rapidly and the patients seemed to be more comfortable with this antigen.

Antigen No. 12. Neither have I seen any aggravation of the eruption during the acute attack when this antigen was used. Edema of the eyelids, when present, subsided more rapidly with this antigen than with the others. Otherwise, I could not see that its use shortened the duration of the attack or made the patients any more comfortable.

COMMENT

The behavior of these new poison oak antigens in humans was very similar to that which this writer observed in animals.[2] The development of immunity following their administration was a definite but slow process in both instances and while they are of value when used as a prophylaxis against poison oak, their action, I believe, is not rapid enough to be of much value as a therapeutic agent during the acute attack. Antigen No. 62 seemed to be the better one of the three for parenteral use. In the group prophylactic study, it gave the best record for protection and in my limited therapeutic study, its use appeared to give patients some relief and to shorten the duration of the acute attack. I would recommend that therapeutic studies be continued, using the intramuscular injection route for both Antigen No. 62 and Antigen No. 12.

SUMMARY

1. Three new poison oak antigens were administered as a prophylaxis to patients sensitized to poison oak. One antigen was found to be more efficient when given orally, another more efficient when given parenterally.

2. The incidence of poison oak dermatitis in two groups of boys in a summer camp was studied and compared. One group had received the antigens by injection as a prophylaxis, the other group had received none.

3. The three antigens were also injected into patients during acute attacks of poison oak dermatitis. Their actions are discussed and compared.

The author wishes to acknowledge the invaluable assistance given by Mrs. Hal E. Parsons and Mrs. Charles C. Nemetz in the routine of patch testing, preparing the boys for injections and keeping accurate records during the period of prophylactic study.

Table 1.

185 Boys, Aged 6-16, Attending Summer Camp Where Poison Oak Growth Was Luxuriant	Number	Number Developing Poison Oak Dermatitis	Percentage
Boys who were positive to the poison oak patch test and who received prophylactic treatment before exposure	49	13	26.5
Boys who were negative to the poison oak patch test before exsure	55	10	18.2
Boys who refused to take the poison oak patch test	81	44	54.3

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Table 2.

Treatment Consisted of 1 cc. Intramuscularly Every 4th Day for 4 Injections	Results of Patch Tests Before Treatment					Results of Patch Tests 10 Days After the 4th Injection					Results of Patch Tests 5 Weeks After Last Injection					No. of Poison Oak Dermatitis Cases Developed in This Group	
	Total No.	1+	2+	3+	4+	Not Done	Neg.	±	1+	2+	Not Done	Neg.	±	1+	2+		
Number Receiving Prophylactic Treatment	49	18	13	16	2	9	15	10	8	7	13	16	9	7	4	13	26.5%
Number Receiving Antigen No. 62	23	9	6	7	1	3	9	4	3	4	4	8	6	3	2	5	21.7%
Number Receiving Antigen No. 12	26	9	7	9	1	6	6	6	5	3	9	8	3	4	2	8	30.8%

The Newer Drugs for Allergic Disorders and Their Place in the Histamin Theory*

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ALTHOUGH it has long been known that allergic phenomena are initiated by the union of antigens and their specific antibodies, the intermediary steps between this union and the manifestations of clinical and experimental allergy have been obscure. Such theories as (a) "disturbed colloidal equilibrium of the cell membranes and blood with serum flocculation," (b) "disturbance of the sympathetic-parasympathetic balance of the autonomic nervous system." (c) the "antigen-antibody combination acting as a specific toxin," and (d) the "enzymic action of the combination on body proteins producing toxins," have each had more evidence against it than for it.

In recent years the "Histamine Theory" has come to the fore as the one with the most clinical and experimental evidence for it and the least against. To sum it up, the antigen-antibody union taking place on the cell surfaces causes cell damage and dissolution of cell proteins, with the liberation of an H-substance, presumably histamine, which causes the increased capillary permeability, stimulation of secretions and smooth-muscle spasm characteristic of allergic reactions. The histamine is produced through the abnormal decarboxylization of the amino-acid histidine resulting from the protein decomposition (Figure 1). Ordinarily the shock-organ, skin, nasal mucous membrane, bronchiolar mucosa and smooth muscle, etc., determines which clinical entity is produced, such as urticaria, hay fever, asthma, etc. respectively, but if overwhelming amounts of histamine are released in the circulation the allergic reactions may be generalized.

Not only has histamine been isolated in increased concentration during experimental anaphylactic[13, 25] shock and in clinical allergic conditions,[47, 57 61] but it also has the following properties,[26] which the intermediary H-substance has been demonstrated to possess: It is stable to boiling with hydrochloric acid, is dialyzable, inactivated by incubation with histaminase or diamine oxidase, and inactivated by condensation with diazotized sulfanilic acid. It lowers the blood pressure of etherized atropinized cats, the contractile effect on the guinea pig intestine is inhibited by arginine (and other "antihistaminic" compounds), produces wheals in the human skin, and is found in highest concentration in the eosinophiles[14] (characteristic of allergic reactions).

Histamine alone cannot completely explain all of the manifestations of anaphylactic shock or clinical allergy.[15, 26] The incoagulability of the blood in anaphylactic reactions, for example, is a phenomenon which requires the liberation of heparin[46] or a similar substance. Eczema and Contact Dermatitis cannot be as plausibly explained as urticaria and angioneurotic edema. Irreversible phenomena such as in periarteritis nodosa are not as well explained as the more common reversible type. In short, the histamine theory is a useful but not perfect working concept.

Counteraction of the Effects of Histamine

The rational practice of allergy attempts to interfere with the antigen-antibody union or control its location through proper elimination and desensitization procedures based upon etiological diagnosis so that the histamine problem does not arise. When such measures are not possible, not desired by the patient, or the results from them imperfect, the problem must be met. Counteraction of histamine is in many respects synonymous with the symptomatic control of allergic disorders and has been attacked on six fronts by the laboratory and clinician:

A. Decomposition of histamine with histaminase.
B. The use of antagonizing sympathetomimetic amines.
C. Partial neutralization with antispasmodics.
D. Increasing intolerance to histamine by physiological adaption.
E. Production of histamine-neutralizing antibodies by antigenic histamine complexes.
F. The administration of chemical blockers or "competitors," so-called "antihistaminic drugs."

A. The administration of the enzyme histaminase, obtained from the intestinal mucosa and kidneys of hogs, with the intent of decomposing histamine (presumably by deaminization) as soon as it is formed has had more laboratory[6] than clinical success. The difficulties encountered clinically are the necessity of fresh preparations and of continuous administration, since the enzyme is far more effective prophylactically than it is after clinical manifestations are under way. Clinical effectiveness of histaminase varies from fair in serum sickness[36] and urticaria to practically zero in asthma.

B. Sympathetomimetic amines of course counteract the parasympathetic stimulation of histamine (its cholinergic effect, if you will). Unfortunately their therapeutic indices are quite low. Epinephrine is the classical antagonist of this type both experimentally and clinically; its properties and uses are too well known to require recounting. Of the host of drugs belonging to this group, only Butanefrine (Ethyl-nor-epinephrine) parenterally[41] or by inhalation;[42] Ephedrine, Propadrine and Nethamine[40] orally; and Privine.[32] Ephedrine, Propadrine and

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Neosynephrine for intranasal use can be considered as useful additions to our therapeutic armamentarium. Each has some differences from epinephrine which can be used to clinical advantage. Butanefrine (Figure 1), for example, has the bronchodilator effect of epinephrine, with less of its central stimulation and none of its vasopressic effect. It is therefore useful in nervous people, small children, and in the presence of cardiovascular disease.[41] Privine has the advantage of prolonged vasoconstriction, but also has the disadvantage[33] of prolonged "rebound vasodilation." The aliphatic compound Tuamine (2-aminoheptane)[59] deserves mention as a useful substitute vasoconstrictor for people unable to tolerate the usual aromatic amines previously mentioned.[29]

PARTIAL NEUTRALIZATION WITH ANTISPASMODICS

C. Antispasmodics such as the xanthine group, papaverine, trasentin, etc., can be classified only as partial antagonists to histamine. Smooth muscle spasm induced by histamine is prevented or relaxed by such compounds experimentally and clinically, but the other pharmacologic effects of histamine are more or less unaffected. However, Theophylline Ethylenediamine, better known as Aminophylline, is most effective in asthma, and the same cannot be said generally for the newer "antihistaminic" drugs.

D. Attempts have been made to increase the physiological tolerance to histamine by its subcutaneous or intravenous administration. It was hoped that by these means the threshold to histamine stimulation could be raised above the point at which amounts ordinarily produced would be effective. Histamine, however, is a drug difficult to control, being highly diffusible and effective in such high dilution that unusual care must be exercised. Flushing, headache, urticaria and asthma may be induced while trying to prevent or alleviate same. Two general methods are in use: The subcutaneous method employs gradually ascending doses of the acid phosphate, starting in the 1:100,000 dilution and ending at 0.2 to 1.0 cc. of the 1:1,000. Dosage is then maintained at the level just short of producing symptoms. This has been notably successful in Horton's Histaminic Cephalalgia[45] and the primary-vasodilative type of migraine. Urticaria has shown some response, but this method has been distinctly disappointing in other allergic disorders. The intravenous method has been of aid only in migraine[11] and urticaria, and is usually used only in interims between attacks. 2.75 mg. of Histamine Acid Phosphate is diluted in 500 cc. of normal saline and given by intravenous drip over a four to eight hour period. Three or four treatments on alternate days are enough for semipermanent effect. Its proponents[11] claim tolerance is raised more effectively by the prolonged contact, but interruptions are often necessary during the actual treatment for the administration of ascorbic acid or small amounts of epinephrine intravenously, and antiacids orally for the gastric distress due to high acid secretion (peptic ulcer danger!?).

E. Histamine itself is not antigenic, but the production of neutralizing antibodies specific for histamine by the injection of an antigenic histamine protein complex has been accomplished. Landsteiner showed that the diazotization of simple chemicals and coupling to proteins resulted in the formation of antigenic complexes whose specificity was determined by the hapten portion.[49] Recently a method has been developed for the heightening and preserving of histamine antigenicity with simultaneous elimination of its usual toxic effects and the antigenicity of the associated protein. The first step was the despeciation of horse serum globulin by partial digestion with Taka-diastase at pH 3.8 followed by neutralization.[16] The resulting globulin produced no reaction in people known to be acutely allergic to horse serum and dander. Histamine was then combined with paranitrobenzoylchloride in chloroform and triethylamine. The resulting paranitrobenzoyl histamine was then reduced with ferrous sulfate and ammonia to yield para-aminobenzoyl histamine, which was then diazotized and coupled with the despeciated globulin. The resulting Histamine-azoprotein contains no free histamine, and is able to stimulate the formation of histamine neutralizing antibodies without producing histamine reactions.[35] Milton Cohen showed that these bodies were specific for the histamine, not the azo or protein portion of the complex, and that in certain patients histamine-azoprotein produced a capacity for very rapid histamine neutralization.[17] He also demonstrated an increased skin threshold to histamine administered by iontophoresis in histamine-azoprotein treated patients[17] and increased refractoriness to eserine stimulation.[18]

INDICATIONS FOR HISTAMINE-AZOPROTEIN THERAPY

Clinically histamine-azoprotein has shown its greatest value in the treatment of urticaria, angioneurotic edema and so-called physical allergy.[19,63] Unthinking enthusaists have harmed its cause by thoughtless use. Histamine-azoprotein is intended as an adjuvant to treatment rather than the sole remedy, and it is in no way a substitute for proper elimination and desensitization procedures based upon etiological diagnosis. When desensitization treatment produces suboptimal results because some antigen-antibody combination still takes place on cell surfaces with the release of histamine, histamine-azoprotein therapy is properly indicated. It is also indicated when the allergen cannot be identified after the most careful search, or in conditions in which the available antigens are weak, unstable or ineffective. In flea-bite sensitivity, to give an example of the last group, histamine-azoprotein has scored a notable success.[43] Apparently the amount of potential histamine neutralization engendered is enough to make the difference between comfort and misery.

F. The administration of chemical blockers or displacers is an old but fascinating subject in allergy, although to read the current newspapers and lay magazines one would infer that "antihistaminic" compounds were recent discoveries by completely altruistic drug companies.

Histamine antagonism is not necessarily synony-

mous with clinical relief, because histamine alone may not be the cause of the illness. Also, histamine has many physiological actions, and the compound under investigation may counteract only one or some but not others. Finally, the results of animal experimentation cannot be translated immediately into data for clinical use. In measuring antispasmodic action, for example, there are several pitfalls. Antispasmodics are of two general types:[60] The Musculotropic ones such as the nitrites and papaverine are tested against Histamine Phosphate ($2x10^{-6}$ gm./cc.) and Barium Chloride (10^{-4} gm./cc.). The Neurotropic ones such as atropine and scopolamine are tested against acetylcholine bromide (10^{-6} gm./cc.). The more peripherally acting museulotropic group would be of most interest to the allergist even without the concept of histamine antagonism. What may be relatively more museulotropic in one speeies may be relatively more neurotropic in another, and viea versa.

Experimentally the simple amino acids Histidine, Cysteine, and Arginine will all inhibit histamine-indueed contractions of the guinea pig intestine,[27] but the amounts required for elinieal use would be toxie. For example, 2,500 or more parts of arginine are required to counteract 1 part of histamine. Aseorbie aeid (Vitamin C) has the same aetion but the amounts required are large experimentally and ineffeetive elinieally[9] (except under special eireumstanees). Aminophylline and epinephrine, previously mentioned, also have this action, and from that standpoint eould be eonsidered as "antihistaminic" drugs.

The new "antihistaminie" drugs should more aecurately be diseussed under the heading of Dialkylaminoaleohol eompounds because of their essential ehemieal strueture. Antihistaminie phenolic ethers of amino aleohols have been known since 1910, but were too toxie for elinical use. Proeaine (p-aminobenzoyl-diethylaminoethanol), which we are accustomed to regard only as a local anesthetic, is an antihistaminic drug particularly useful in serum sickness and urtiearia.[1,65] Combinations of various aminoalcohols and chemical modifications of diphenylacetic acid have long been known to be antispasmodics. The aminoalcohol determines the nature of the aetion, while its intensity is modified by the acid group employed. If, for example, the diphenyl acetic aeid ester of dimethylaminoethanol is prepared the result is a Neurotropic antispasmodie (Trasentin). If, on the other hand, the ester of 9,10-Dihydroanthraeene-9-carboxylie aeid is prepared the result is a Musculotropic one. Many of these compounds have more or less loeal anesthetie action, whieh appears to eorrelate more elosely with musculotropie aetion than with other properties.[59]

The members of this recently publieized and growing family of "antihistaminies" of interest to us doing elinieal allergy are Procaine, Benadryl, Pyribenzamine, Antergan, and Beta-dimethylaminoethyl 9,10-Dihydroanthraeene-9-Carboxylate Hydrochloride, to be referred to hereafter as No. 887. Their structural formulae are shown in Figures 2 and 3.

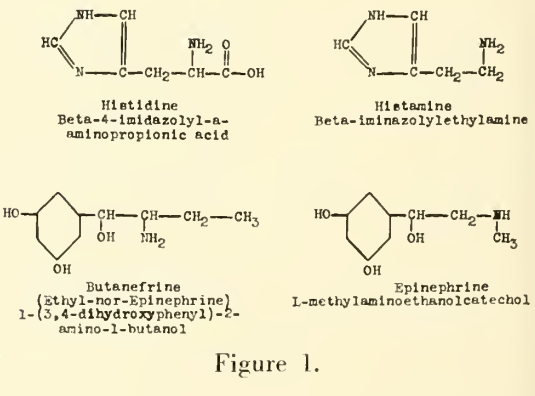


Figure 1.

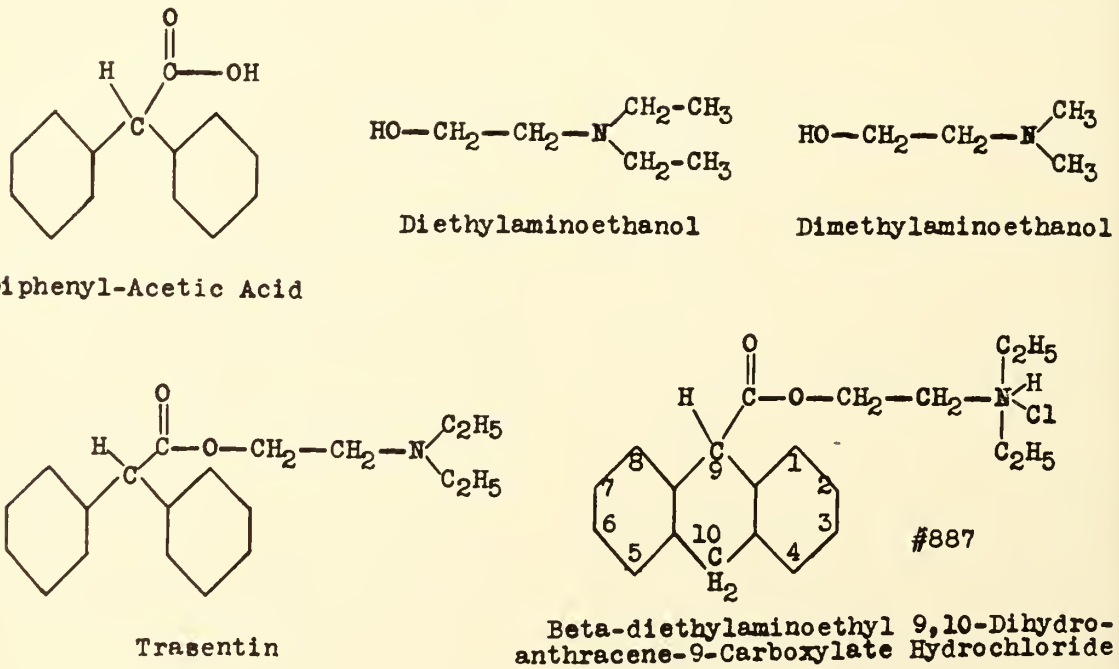


Figure 2.

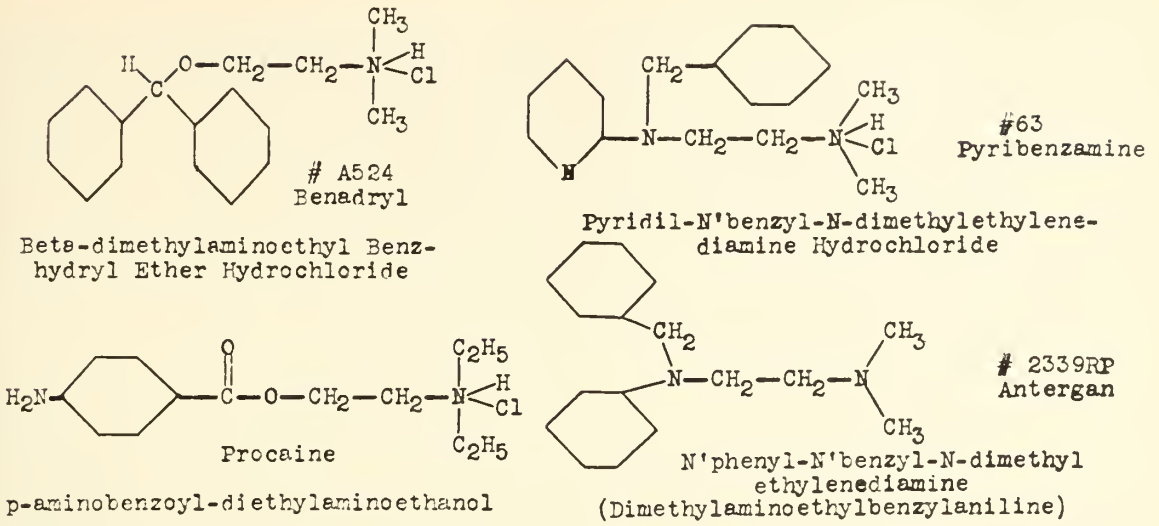


Figure 3.

Note the dimethylamine-ethane or diethylaminoethane group invariably present. All of them have local anesthetic action and secondary to that are cerebral depressants, a fact not sufficiently recognized. Their mode of action is a blocking one;[69] they combine with the site of action of histamine, occupying it primarily when given prophylactically or displacing it when given therapeutically. Histaminase is neither potentiated nor inactivated by their use and serum antibody levels are unaffected. Their absence of peripheral vasoconstrictor effect is evidence against a sympathomimetic effect. The release of histamine by antigen-antibody reaction is not prevented, and there is no evidence that the drugs combine with histamine itself.

Two standard methods adopted by laboratories in testing survival from ordinarily fatal histamine doses are: (a) the administration of a presumably protective dose of "antihistaminic" followed by histamine subcutaneously (or intravenously) and (b) a protective dose followed by histamine aerosol inhalation.[52] An examination of the comparative figures obtained by this last method would be of interest.

AEROSOLIZED HISTAMINE IN GUINEA PIGS

Dose in mg./kg. required to protect against asthma:

Epinephrine	0.2	
Ephedrine	>50	
Atropine	25	
Antergan (No. 2339RP)	1	
Benadryl (No. A524)	5	usually (10-15 reported)
Pyribenzamine (No. 63)	0.1	
No. 887	1	(approximately)
Procaine	Figures not available	

Needless to say, these figures are not directly transposable to the human. Other histamine induced phenomena have been studied with these drugs: inhibition of guinea pig intestine contractions; prevention of blood pressure drop in etherized atropinized cats; prevention of bronchoconstriction induced by lung perfusion: prevention of bronchoconstriction in barbitalized dogs intravenously induced; and prevention of vasodepressor effects of epinephrine. Decrease in gastric acidity and total secretion have been noted in animals and the human.[55] this effect being most marked with Benadryl. Except for Procaine, therapeutic indices are large and chronic toxicity studies thus far have been negative.

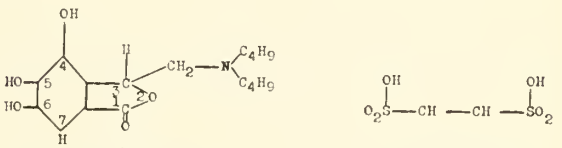


Figure 4.

Procaine is the most familiar member, and, curiously enough, it is itself a fairly frequent cause of clinical allergy of the contact type. Its clinical use in allergy thus far has been limited to the treatment of serum sickness and urticaria.[1,65] One gram in 500 cc. normal saline is given intravenously over a two-hour period, and the treatment may be repeated daily. Of 16 cases of serum sickness, State[65] completely relieved ten and temporarily relieved four, and relieved six of seven cases of urticaria. In addition to "antihistaminic" action, one must consider the direct anesthetic action on the cells, decrease of acetylcholine liberated at terminals of efferent fibers, and epinephrine potentiating action.

For practical purposes, Benadryl and Pyribenzamine are clinically equivalent, 1 to 2 parts of either being required to counteract 1 part of histamine, depending on the circumstances. Because one has an ether linkage and the other a nitrogen linkage they are not exactly comparable pharmacologicaly. They are both effective orally, and clinical relief, when obtained, is evident in twenty to thirty minutes. Dosage varies from 50 to 500 mg. daily for an adult, the average effective plan being 50 mg. three or four times daily. The parenteral route is neither advisable nor ordinarily necessary, epinephrine being safer and more useful in emergencies, but Benadryl has been used in doses of 20 to 40 mg.

intravenously or intramuscularly. Benadryl is irritating in over 0.5 per cent concentration, so that its intranasal use is not advisable. Pyribenzamine has not been tried that way, but it seems inadvisable to use any local anesthetic intranasally for symptomatic relief.

It is difficult to give the percentages of various conditions in which relief may be expected from Benadryl or Pyribenzamine, because the reporting investigators varied in their dosages, in their definitions of the conditions treated, and in their criteria of relief. Here are reasonable "round-figure" averages compiled from over 2,600 cases* in current medical literature. How much allowance has been made for the variability of allergic manifestations and spontaneous improvement is unknown.

Urticaria and angio-neurotic edema, acute	85%
Urticaria and angio-neurotic edema, chronic	75%
Dermographism	80%
Atopic eczema (the pruritus only)	50%
Contact dermatitis (the pruritus only)	60%
Seasonal allergic rhinitis (hay fever)	60%
Perennial allergic rhinitis (extrinsic cause demonstrated)	40%
Vasomotor rhinitis-hyperesthetic rhinitis (intrinsic?)	40%
Seasonal asthma (associated with hay fever)	45%
Perennial asthma (extrinsic etiology demonstrated)	30%
Perennial asthma of unknown etiology (intrinsic?)	30%
Asthma precipitated by acute (upper) respiratory infection	Zero %

The number of cases of migraine, histaminic cephalalgia, gastro-intestinal allergy, serum sickness, and pruritus of miscellaneous origin thus far treated do not permit of reliable conclusions; the statistically-minded may use 50 per cent, 60 per cent, 85 per cent (Benadryl)-28 per cent (Pyribenzamine), eighty per cent and sixty per cent, respectively, temporarily. Of the two drugs, only Benadryl has been used clinically to depress gastric secretory activity in gastro-intestinal conditions.[55]

Maximum effectiveness is shown in the conditions exhibiting wheal formation, as might be expected. The perennial rhinitis and asthma cases include both those in which a definite allergic cause can be demonstrated and those of unknown origin. A clinical impression is that results in the latter group are much poorer than in the former. Asthma precipitated by acute respiratory infection is conspicuously unrelieved, and the result in asthma other than that associated with pollinosis are not spectacular. All of these figures include both total and partial relief; about one-third of those relieved are only partially so. All relief is purely temporary, the symptoms usually recurring promptly in the chronic cases on discontinuance of treatment.

We know of Antergen only from the reports of French investigators.[5,12,24,38] The general properties are the same as those of Pyribenzamine, but four or five times larger doses are required clinically. The more recent Neoantergan is claimed to be more effective and less toxic than Antergan.[7,23]

The side effects of these drugs are by no means minor, as they limit their clinical usefulness and necessitate certain precautions in directions and occasionally counteracting adjuvants (which are in themselves not innocuous). The most frequently occurring side-effects are sleepiness of varying degree, nausea and vomiting, dizziness, headache, dry mouth, nervousness and gastro-intestinal cramps. Various authors have reported incidences of 20 per cent to 70 per cent of their series having side-effects. The majority, including the author, note about 50 per cent. Of these, one-tenth to one-half have to discontinue the drug, again the figures depending on the author's estimate of what is serious or dangerous. The order of reactions with Pyribenzamine is: Sleepiness, nausea, headache, gastro-intestinal cramps, dizziness, nervousness and dry mouth. The order with Benadryl is: sleepiness, dry mouth, nervousness, dizziness and weakness.

Whereas the hypnotic effect is a useful one at night, it is dangerous during the day and can be the cause of accidents.[64] The first few doses should always be taken while a person is in a safe place under observation (not necessarily by a physician), and not while at work around such things as ladders, scaffoldings, machinery, etc. Counteracting these effects with caffeine or amphetamine stimulation may merely add the undesirable effects of these drugs, such as nervousness and loss of appetite. Sedatives must, of course, be used cautiously, and one must be doubly careful about the administration of anesthetics for emergency operations.

The indications for the use of Benadryl and Pyribenzamine may be summed up as follows:

(a) The control of diffuse skin irritability and Dermographism so that the performance of specific skin tests is possible.
(b) The control and prevention of testing and treatment reactions.
(c) The maintenance of allergy patients in comfort for a few weeks until specific desensitization becomes effective.
(d) The control of acute transient allergic manifestations.
(e) The control of pruritus in general in order to minimize scratching and the attendant danger of infection.
(f) The control of urticaria following sulfonamides, antibiotics,[62] organ extracts, serums and indispensable drugs.
(g) Infrequently, the control of gastric acidity.

The possibility of acquired allergy to the drugs themselves is not fantastic, as urticaria from both has been noted. Anemia resulting from the anacidity is possible from long continued use, though how probable that is we do not yet know. The aromatic rings and coal tar origin suggest the possibility of agranulocytosis, and of caution in administration to salicylate-sensitive persons.

Beta-Diethylaminoethyl 9,10-Dihydroanthracene-9-Carboxylate Hydrochloride (No. 887) cannot yet receive a general comparison with Pyribenzamine and Benadryl, because it has been clinically evaluated only in asthma.[44] Since the supply available was limited, it was tried only in this condition, in which Pyribenzamine and Benadryl were relatively ineffective. Experimentally it is about 20 times more potent than papaverine and about one-fifth as effective as epinephrine in relaxing spasm of the bronchioles induced by histamine.[10] From the viewpoint of acute toxicity there is a wide margin

* 2, 3, 20, 22, 31, 34, 37, 48, 51, 53, 54, 56, 58, 66, 67, 68.

of safety, but the hypnotic action (also a local anesthetic!) is a limiting factor for daytime use. No adverse effects or habituation have been observed from prolonged administration. Oral administration to 90 cases of asthma of varying grades of severity provided 80 per cent of them with definite benefit, a marked contrast to Benadryl and Pyribenzamine. The optimum dose on retiring appears to be 200 mg., but during the day 100 mg. every four hours appears to be enough unless the asthma is quite severe.

By way of conclusion, some philosophy may be added to allergy. Up to 1932, 165 methods of inhibition of anaphylaxis had been described. In the last fifteen years there have probably been hundreds more. Out of all of these relatively few have proven their value. The successes have been characterized by prolonged preliminary investigation in ethical laboratories and clinical trial by objectively-minded, conservative allergists. The possibilities inherent in the compounds could be predicted fairly well from their chemical structure and groupings. Conversely, unwarranted claims can often be shown up by a consideration of chemical structure, concentrations employed and methods of use.

The desire of newspapers to present information that is startling rather than factual has led to the recent unwarranted publicity for Anthallan, purportedly an "antihistaminic" drug, and Ethylene Disulphonate (Allergosil), not "antihistaminic" but unfortunately confused with them (Figure 4). Supposedly present in allergic individuals is a "defect in intracellular oxidation-reduction mechanisms and disordered carbohydrate breakdown." Ethylene disulphonate is the synthetic catalyst proposed to correct this regrettable defect.[30] Small amounts in a dilution $1x10^{15}$ in distilled water are administered intramuscularly. The temporary pain and muscular fibrillation observed are no doubt due to the practically pure water injected (and at what a price!) A few enthusiasts have published papers of questionable scientific worth, but the consensus of opinion[4,8,21] of recognized allergists is that the compound has no value and cannot be distinguished in its effects from distilled water.

Anthallan (Di (n-butyl) aminomethyl-trihydroxy benzofuranone) is purported to have antihistaminic effect pharmacologically, but it is as clinically inactive as its structural formula is unpromising. Questionable criteria of allergy were used in the conduct of the clinical investigations.[28] In fact one investigator claims that "not only can hyperesthetic rhinitis [please define that term for us!] be treated simply and effectively with this drug, but the diagnostic problem can be ignored."[39] With these noble words allergists are wafted from usefulness into obsolescence.

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MEDICAL PROGRESS:

Progress in the Treatment Of Carcinoma of the Prostate

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CARCINOMA of the prostate is a common and fatal disease although in many cases the life of the patient has been prolonged and made more livable by modern methods of treatment. The disease develops as a distinct pathologic entity and is apparently not related either to hyperplasia, inflammation or calculous involvement of the gland. In the majority of cases the tumor progresses slowly, metastasizes freely and usually causes death in a period measured by months. More rarely the growth may be sluggish, remaining confined to the prostate without noticable change for years, causing few if any symptoms, and the final confirming diagnosis in such cases may only be made at autopsy after death resulted from other causes.

INCIDENCE

Carcinoma occurs three times as frequently in the prostate as in any other internal organ of men. Young,[30] in a review of his surgical cases, stated that carcinoma of the prostate is found in at least 14 per cent of all men over 44 years of age. About 20 per cent of men over 60 years will have prostatic trouble; four out of 20 of these will have carcinoma of the prostate. Rich[26] reviewed 292 consecutive post mortem examinations of men aged 50 or over, who died of a wide variety of causes at the Johns Hopkins Hospital. Frank carcinoma of the prostate gland was observed in 31 cases in the microscopic section taken as a routine at autopsy. In 65.8 per cent of these 41 cases the tumor was not recognized clinically: in most instances it was too small to have produced symptoms or to have attracted attention on physical examination. Apparently the incidence of prostatic carcinoma increases with age. Moore[17] found prostatic cancer in 21 per cent of 252 subjects between 41 and 90 years of age: between the ages of 81 and 90 the incidence was 27 per cent. The same high incidence of occurrence is also reported from European medical centers. Walthard[29] examined 100 prostate glands of men more than 40 years of age. The specimens were obtained at necropsy. None of the patients had died from disease of the prostate gland. In 30 cases an undeniable carcinoma of the prostate was observed. In 25 cases signs of malignant infiltration had already occurred; in five cases the typical picture of carcinoma was observed without any infiltrating growth into the regional tissue. The reports of Rich and Walthard suggest that in a fair proportion of cases prostatic carcinoma may be entirely symptomless, causing no recognizable clinical disturbance to the host.

CLINICAL AND PATHOLOGIC DATA

The symptoms of carcinoma of the prostate are similar to those caused by prostatic hypertrophy. Both occur at approximately the same age and carcinoma is frequently super-imposed on benign hypertrophy. Rathbun[24] called attention to an important point in the history, namely, that the symptoms in cases of carcinoma are disproportionately severe in relation to their duration and the degree of obstruction present. Cachexia usually begins with marked urinary retention.

In a group of 280 cases reported by Barringer,[2] carcinoma occurred most commonly between the ages of 65 and 69 years. In Young's cases the peak was 55 to 59. In a recent analysis of 581 cases by McCrea[16] the average age was found to be 63 years. The diagnosis of prostatic carcinoma, like the diagnosis of tumor of the bladder, is usually not made until the disease is far advanced. In Barringer's series of cases 24 months had elapsed between the onset of symptoms and the establishment of the diagnosis. In another group of 729 cases reviewed by McCrea the time of survival following admission to the hospital was nine months. Prostatic carcinoma rarely causes symptoms until the disease is far advanced, thus adding to the difficulty of its recognition in the early stages, which is the only time when a cure is possible. Persistent symptoms such as frequency and difficulty of urination, retention and nocturia among patients of carcinoma age should call for repeated careful examination for prostatic malignancy. If we expect to recognize this condition while it is still in a stage amenable to cure, periodic examinations of the prostate should be carried out in all men over 40 years of age, regardless of symptoms.

Clinically and pathologically there are two types of prostatic carcinoma, with, of course, intermediate stages. The first is the more common type, and its degree of malignancy is lower than that of the second type. The organ is made up of cells and glands and retains the normal or glandular structure. The cells are partly differentiated, fairly regular in size and shape, and retain the long tufted end projecting into the glandular lumen, which is the most significant feature of prostatic epithelium. The nuclei are round, relatively larger than the nuclei found in normal or hypertrophied glands, and contain the distinct nucleoli which are so prominent in undifferentiated cells. Clinically these prostates are large, nodular, stony, and produce the symptoms of obstruction first calling attention to their presence.

The second type of cancer when examined microscopically may at times be confused with lymphocytic infiltration. The malignant cells that have migrated into the stroma often show a streaked or etched-out appearance, in contrast to the clumped, localized disposition of lymphocytic infiltration. The cells in such glands, either from morphologic or mechanical influences, have lost their original structure; they do not conform to the usual type, but vary in size and arrangement. These may comprise great masses or extending wedges of tightly packed cells containing large deeply staining nuclei. In other cases the cells may be loosely arranged, separated, and supported by a small amount of connective tissue. When there is an excessive amount of fibrous tissue, the cells may have disappeared completely or may be pressed into bizarre lines and streaks. If there is glandular formation the acini are atypical and the cells are flat, grouped together irregularly, and contain nuclei which are relatively much larger than those found in non-malignant cells. Clinically the prostates of this type are small, fibrous and firmly fixed. The tumors in them are extremely malignant, they metastasize readily, and they are often unrecognized, since paralysis may occur as a result of the metastasis before the gland has reached sufficient size to produce urinary symptoms. The small size of them often leads to the erroneous opinion that the patient is a good surgical risk and to operation with unfavorable results.

DIAGNOSIS

Rectal examination establishes the diagnosis in most cases. Unfortunately, in the large majority of cases the condition has advanced to such a stage that it is only too readily recognized. The prostate is firm, fixed with an unmistakable hardness, the lateral margins may be angular or the normal contour of the gland is completely obliterated. In a surprisingly large number of cases there is infiltration of the adjacent structures with an extension upward along the course of the seminal vesicles. In early cases only a hard nodule may be felt, or one side of the prostate is rigid with a fixed, sharp, lateral margin. In a small group of cases, either the growth itself is not particularly hard, or an overlying layer of adenomatous tissue masks the usual rigid firmness.

Cystoscopy usually reveals an unyielding area in the prostatic urethra that grips the instrument, causing a characteristic limitation of mobility. In a transurethral resection, malignant tissue cuts more cleanly and there is less bleeding than occurs with adenomatous hypertrophy, the edges of the cut tissue remain sharply defined and the tissue at times imparts a fibrous feeling to the instrument.

Determination of the acid phosphatase of the blood serum is a definite aid in diagnosis. It is known that there is a high concentration of acid phosphates in the prostate gland after puberty. Acid phosphatase is also present in the primary tumors of carcinomatous prostatic tissue, in the skeletal metastases and in the blood serum of the patients with metastases. The level of serum acid phosphatase may be fairly high when extensive metastases are present. Nerb[20] states that comparable elevations in the blood are not found in any other condition and that the finding is pathognomonic. Only positive tests, that is, those indicating high levels, are of significance because, in some cases, there is no increase in the enzyme. If the growth is confined to the gland itself there is usually no increase in serum acid phosphatases; readings above 4 units are apparently diagnostic of metastases. Acid phosphatases readings may also be used as a determination of the efficacy of therapy. A decreasing level suggests clinical improvement; an increase signifies more extensive involvement and an unfavorable prognosis.

TREATMENT

The treatment of carcinoma of the prostate has always been unsatisfactory, the results poor. Only a small number of cases are seen early enough to be relieved by surgery, implanted radium gives at best questionable relief, only 5 per cent of tumors are sensitive to Roentgen rays (Barringer), and suprapubic drainage is an admission of failure. Truly this is a miserable outlook for the patient. In 1941 the discoveries of Huggins[12] offered these patients new hope—not necessarily hope of cure, but relief from suffering and the prolongation of a not uncomfortable life. Huggins and his co-workers demonstrated a functional relationship between prostatic carcinoma and certain endocrine substances, thus giving us an entirely new method of treatment.

The report of Bumpus[4] on 485 untreated patients with prostatic carcinoma is of interest and serves as a basis of comparison of the duration of life for them as against that for patients who have received treatment. In Bumpus' untreated cases the average duration of the disease until death was 31 months. When metastases had occurred at the time of examination, two-thirds of the patients died within nine months.

SURGERY

Radical removal. The only known cure for prostatic carcinoma is early radical removal of the gland. Both Young[30] and Hinman[11] have reported large series of cases with good survival rates and satisfactory functional results. A long period of survival should be expected in this group for, as pointed out by Hamm,[9] these patients treated surgically represent cases selected in the early stages of the disease. This group also contains those patients in whom small areas of malignancy, undetected by the clinician or surgeon, were recognized and classified by the pathologist after removal. Colston[5] reported a series of 73 patients operated on at the Brady Institute during a five-year period: four died. Of 43 patients for whom the prognosis was good, 41 are living and well without evidence of metastasis or recurrence. Of 26 patients for whom the prognosis was poor, eight are living and well from three months to five years after operation. Follow-up of all patients who had early cancer on whom Young's radical operation was

performed showed that more than 50 per cent were free from trouble from five to twenty-seven years after leaving the hospital. Smith[27] reported 42 cases with three operative deaths. Seventeen died of the disease after an average duration of 27 months. Four are alive but have recurrence of their disease. Seventeen are alive and apparently well. Alcock[1] states that radical surgical removal offers the only possibility of curing the disease but that operation is applicable in such small percentage of cases that it is not an adequate solution of the problem. In 351 consecutive cases Barringer[3] found only 16 (4.5 per cent) which might be called reasonably small that were confined to the prostate gland and the periprostatic region. In a second group of 26 (7.4 per cent) cases, the growth was medium size, reaching well beyond the prostatic gland proper. In the remaining 309 (88 per cent) cases the growth was extensive and inoperable or there were metastases. Creevy[6] advocates radical operation only in the earliest stages. In only ten of his 500 cases of prostatic carcinoma was the radical procedure done. In 95 per cent of Thompson's[28] cases the growth was spread beyond the confines of the prostate when first seen. Kahler[15] found an involvement of the perineural lymphatics in 91 per cent of cases of prostatic carcinoma. The localized tumors, even the smallest ones, showed this same high incidence of perineural involvement, an important argument against the feasibility of local removal in the majority of cases.

There is a large group of patients with urinary obstruction but with such extensive growths that local removal is impossible. Until recently, suprapubic bladder drainage was employed in the majority of these patients. This made a very unhappy situation. The patient was constantly wet, the tube caused pain and required frequent attention, and in general this procedure made the last few months of life quite miserable.

Transurethral resection is the simplest and in the majority of cases the most satisfactory operation for the relief of obstructive urinary symptoms caused by prostatic carcinoma. If properly performed it gives adequate relief for prolonged intervals. Carcinomatous tissue resects easily and cleanly and the resection can be repeated if obstruction re-occurs. As Thompson states, normal vesical function is achieved at minimal risk to life, with practically no risk that incontinence will result.

ENDOCRINE THERAPY

A relationship between carcinoma of the prostate and certain hormones was demonstrated by Huggins in 1941. Since that time many patients with carcinoma of the prostate have been treated by castration and by the administration of estrogenic hormones. Dean,[7] in discussing hormone therapy in these cases, states that, from the clinical viewpoint, the observations suggest that patients who have cancer of the prostate are made more comfortable when treated by surgical castration or by the administration of estrogens than when treated by other methods, and perhaps live longer. The majority, however, after a variable period of improvement relapse and die of the disease. Possibly endocrine therapy exerts different degrees of benefit on different types of prostatic cancers to such a degree as to provide even a cure in an especially fortunate case.

Castration, thus decreasing the amount or the activity of the androgens, has been the most frequently employed method of changing the hormonal balance. Huggins[13] emphasizes that the results of castration in treatment of carcinoma of the prostate are not uniformly successful; they fall into three groups. In one group the patients (less than 5 per cent) receive no or slight benefit from this form of therapy. In the other groups, which were larger and contained nearly equal numbers of patients, improvement was pronounced but unsustained (less than 18 months) in the first, while in the second a pronounced and more prolonged regression of the disease was obtained.

There are a number of definite benefits which usually follow orchiectomy. Among the first of these is usually complete cessation of pain, with this relief in favorable cases persisting throughout the course of the disease. Patients who under earlier methods of treatment would require several grains of morphine daily are quite comfortable without sedation. Castration is also followed by a surprisingly pronounced feeling of well-being, together with a freedom from worry. Appetite improves and there is a gain in weight and strength. One patient with generalized bony metastases was able to resume his full duties as a Pullman porter shortly after orchiectomy; 18 months later he was still working. Pain was relieved in 88 per cent of Emmet's[8] cases and favorable response as determined by both subjective and objective criteria was observed in 73 per cent of Nesbit's and Cumming's[21] cases. Huggins pointed out that frequently there is a recession of the primary tumor, so that the hard, nodular, craggy prostate gland becomes smooth and soft and greatly decreases in size. Changes are often observed in the metastatic growths in the bones on roentgenographic examination, the metastatic lesions usually undergoing increased calcification within several months after orchiectomy. The increased density is often followed by stabilization of growth or by disappearance of the metastatic growths to roentgenographic examination. The regressive changes in the prostate are at times quite marked. Regressive changes in the primary neoplasm occurred in 32 per cent of Emmet's cases and in a large portion of Nesbit's and Cumming's cases. Neuswanger[24] noticed two cases of incontinence following castration. The sphincter had weakened by invasion of carcinoma and castration caused so much relaxation that incontinence resulted.

There are a number of methods advocated for castration. The simplest and most effective is carried out by removing the testicle and epididymus through a small scrotal incision. The cord is clamped, cut and tied and the incision closed without drainage. A small amount of sulphanilimide placed in the wound prevents local infection and

acts as a hemostatic agent. Leaving part of the epididymis or the testicular shell for their prosthetic possibilities offers little and is rarely done at present. Munger[19] and others reported good results with destruction of the testicles by means of x-ray radiation.

ESTROGEN THERAPY

Estrogen therapy accomplishes much the same results as castration. Dean states that the clinical benefit which follows the oral administration of diethylstilbestrol is as great as that which follows surgical castration. Herbst[10] stated that the practical objective of chemical treatment of carcinoma is modification of the soil in which the malignant cells grow, in order to inhibit their growth. Huggins[14] states that the inhibition of the androgens is not complete in attempts at their inactivation by estrogens. Also the partial inhibition is temporary and estrogen therapy must be continued. Furthermore the administration of estrogen has in itself a carcinogenic effect.

There are a number of side effects which appear after the administration of estrogens, including nausea, reductions of sexual potency and mammary gland changes. The breasts frequently become swollen and painful, although in some cases no change is noted at any time. There is usually a microscopic proliferation as well as a gross enlargement of the breasts. Moore[18] and others have shown that the extent of the breast changes is no indication of the amount of benefit the patient is receiving. McCrea has noted that the side effects of estrogen therapy are less intense with ethinyl estradiol than with diethylstilbestrol.

A combination of castration and estrogen therapy is used in most cases; the results of the combined method will be discussed together. Castration should not be done routinely and there is no evidence that it is necessary in the early stages of the disease. Neshit and Plumb[22] state that the preponderance of evidence continues to support the opinion that maximum therapeutic benefits are derived when the hormonal treatment of prostatic cancer is delayed until advanced stages of the disease have developed. It should be reserved for advanced cases and for those with metastases.

If the prostatic carcinoma is small, localized and can be removed surgically, radical resection should be considered. Some cases require no treatment. If the growth is inoperable, as is usually the case, and is causing neither pain nor urinary obstruction and is not increasing in size or metastasizing, watchful waiting is advisable. If treatment is indicated in the early stages of the disease, estrogens should be administered. If the patient does not respond to treatment or if the lesion is of the type which usually has a tendency to progress rapidly or if the patient cannot take stilbestrol, castration should be performed. Herbst showed that castration was effective for patients who showed no improvement after treatment with estrogens.

Castration should be reserved for the last play, for, once the testicles are removed, stilbestrol is of little value should there be a recurrence of symptoms. Also, castration involves the risk of provoking extra-gonadal production of androgens.

Nesbit and Plumb[23] reported a follow-up on 795 patients treated prior to the endocrine era and a comparison of survival rates between these and patients treated by endocrine therapy. Twelve months after first being seen, 7 per cent of those treated by stilbestrol and 13 per cent of those having had orchiectomy were dead, in contrast to a death rate of 43 per cent in those treated before 1940. At 24 months, 25 per cent of patients treated with stilbestrol, 35 per cent of those having had orchiectomy and 68 per cent of the earlier group were dead. At 48 months, 65 per cent of those having had orchiectomy, and 80 per cent of the earlier treated cases were dead. Nesbit and Plumb reported that only 20 per cent of patients castrated for the treatment of prostatic cancer were living and free from symptoms after 41 months. Three-fourths of their patients who displayed no evidence of metastases when castrated were dead or, if alive, had widespread metastases.

SUMMARY

Carcinoma of the prostate is a frequently occurring fatal disease which usually causes symptoms only when far advanced. In order that this condition be recognized while still in a stage amenable to treatment, frequent periodic rectal examination must be done on all men over 40 years of age, regardless of symptoms.

If carcinoma is found in an operable stage, radical prostatectomy is usually indicated. When, as frequently occurs, the growth is inoperable and is causing symptoms, endocrine therapy is advisable either by the administration of estrogenic substances or castration or a combination of the two. Endocrine therapy relieves pain, retards the disease, prolongs life and in rare cases may be curative.

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EDITORIALS

The Relation of the General Practitioner to the Practice of Medicine in Hospitals

The place of the General Practitioner in the practice of medicine in the hospital is a subject that lately has been discussed heatedly and widely by the medical profession. This problem can be answered only after answering two other questions. First, what is the place of the General Practitioner in the practice of medicine? Second, what is the place of the hospital in the practice of medicine?

The training of a doctor of today is inextricably combined with hospital facilities. The use of hospital facilities is now recognized by most people as the *sine qua non* of adequate medical care. It has been estimated that about 80 per cent of the practice of medicine is taken care of by the General Practitioner and about 20 per cent by the Specialist. It seems to follow that if hospital facilities are inseparable from the present day concept of adequate medical care and if 80 per cent of the medical care of the nation is in the hands of the General Practitioners who have been trained to use the hospitals, then to eliminate or exclude the General Practitioner from the use of hospital facilities perpetrates a fraud on the public and on the doctor who has been trained to use those facilities. Such exclusion would inevitably result in lower standards of care for the bulk of his patients.

The use of hospitals as a place for the practice of Specialists alone is a relatively recent development. The tendency began in a laudable effort instituted by the American Medical Association and later brought to fruition by the admirable work of the American College of Surgeons to raise hospital standards. From a totally unorganized, unstandardized jumble of good and bad hospital facilities has come our present-day American hospital system. The purpose of the American Medical Association and the American College of Surgeons has been not to eliminate capable doctors from staffs nor to concentrate the practice of medicine in the hands of the few. The fact that such a development seems to be arising is rather the fault of administration and a failure to analyze and direct the hospital system.

The purpose of the Certification Boards of Specialists has been stated admirably by the American Board of Surgery in a resolution passed by that Board December 14, 1946. Among other things this resolution stated: "The American Board of Surgery is not concerned with measures that might gain special privileges of recognition for its certificants in the practice of surgery. It is neither the intent nor has it been the purpose of the Board to define requirements for membership on the staffs of hospitals. The Board specifically disclaims interest in or recognition of differential emoluments that may be based on certification."

This is a clear statement and is unassailable. However, in the book "The American Hospital"—1946 edition, page 155, the author, Dr. Corwin (Ph.D.), states: "In the future there will be no excuse to make a major hospital staff appointment from among any except those who have met the standards of their respective Specialty Boards."

Many hospitals have turned lately toward Dr. Corwin's concept of staff appointments so that at present it is practically hopeless for a General Practitioner to apply for membership on a major hospital staff, at least in the larger cities. These hospitals explain this attitude by the statement that they have not enough beds to supply the demands of the men already on the staffs (and this is absolutely true). Also, they have stated that they could not allow any except Specialists or Diplomates of the Specialty Boards as members of the staff or

heads of department, else they would lose their approval as training hospitals for Residents. By unanimous vote the House of Delegates of the American Medical Association, on December 10, 1946, at the Chicago meeting, settled this aspect of the question by adopting the resolution reading as follows:

"Resolved, that hospitals should be encouraged to establish General Practitioner services. Appointments to a General Practice Section shall be made by the hospital authorities on the merits and training of the physician. Such a General Practice Section shall not per se prevent approval of a hospital for the training of Internes and Residencies. The criterion of whether a physician may be member of a hospital staff should not be dependent on certification by the various Specialty Boards or membership in special societies."

Despite the specific disclaimer by the American Board of Surgery of its interest in any recognition of differential emoluments based on certification, various hospitals and notably government bureaus (for instance, the Veterans' Administration) have added 25 per cent more pay or differential in fees to those who are certified. This definitely is opposed to the objects of the Board and inevitably causes unrest and apprehension among other capable men who see in this action (rightly or wrongly) a plan to concentrate all hospital practice in the hands of a few.

It is apparent from these facts that the principles stated by the various corollary organizations of medicine are not at fault. In the development of staffs of hospitals limited to specialists, therefore, there has been misinterpretation or maladministration of these principles.

We are now in battle again in our legislature, fighting enactment of bills under the guise of hospitalization insurance, which would destroy the proper practice of medicine and would perpetrate a fraud on the public. The greatest weapon against the enactment of these Compulsory Health Insurance schemes has been the development by medicine of voluntary pre-payment plans to finance the cost of medical care and hospitalization. These plans have been supported by the general practitioners of medicine. Those few doctors who have obstructed, or at most given luke warm participation to those plans, have been in the main specialists. Under the contracts of the voluntary plans, such as California Physicians' Service, and others, practically all the conditions covered by the policies consist of surgical or other procedures listed under specialty classification. If a General Practitioner is not admitted to hospital practice to care for those procedures simply because he is not a Specialist, rather than upon a basis of his ability to perform that type of service, it follows that he cannot long support these voluntary medical service plans. For him not to support these plans would be disastrous, as it would then be relatively simple for a disappointed public to succumb to the false promises and blandishments of politically ambitious schemers who promise Utopia under the guise of socialized medicine. As stated before, the government bureaus have already given evidence that they would draw the lines of specialism tighter and would strangle the very thing we are trying to preserve for the people.

It was evidently many of these considerations that prompted the House of Delegates of the American Medical Association to pass the resolution urging establishment of General Practitioner Sections in all hospitals, and to point out that the ability of a doctor is the governing factor for good service rather than membership in any special society.

It is imperative of course to restrict, by proper consultation and rules, the performance of any medical or surgical procedure to those who have proved their capability. This is well recognized and accepted by all. The proof of the pudding is in the eating. Actual performance, or as Al Smith said, "a look at the record" could easily enable a doctor to be judged on his merits. The need for specialism is self evident. The worth of the Specialist and his use of hospital facilities for the benefit of his patients needs no apologia.

In addition it would seem that the General Practitioner is well within his rights to ask—and the welfare of his patients (constituting 80 per cent of all the people needing medical care) demands—that hospitals heed at once the dictum of the House of Delegates of the American Medical Association and take steps to rectify a trend or a policy of action that is so fraught with danger, injustice and lack of wisdom.

Nursing at the Crossroads

The current session of the State Legislature highlights the situation faced by California and the nation in the matter of adequate nursing facilities. There are before the members of the Legislature several bills aimed at ameliorating the shortage which is little short of startling.

On the one hand there is a bill to abolish a present section of the Medical Practice Act which provides for the licensing of "trained attendants" for hospital service. At the other extreme is a bill which would build this section up into a provision for a completely new licensing board, the majority of the members of which would be members of the State Board of Nurse Examiners. This latter measure would standardize on a nine months training course for trained attendants and would presumably create a corps of hospital attendants who could properly handle numerous duties in the care of patients under the supervision of registered nurses, the latter then to act as administrators of wards or other hospital units. The present law on trained attendants dates back to 1935. In the first year after its passage there were nine persons licensed under its terms by the Board of Medical Examiners; in the succeeding ten years there have been exactly two persons licensed.

Everyone associated with the care of the sick knows of the serious shortage of nurses; those closest to the picture know that many nurse training schools have been unable to fill their student

classes this year. The cause of this shortage may be the availability of other work at more attractive wages, or it may be the desire to get away from some of the more unpleasant tasks of nursing. Whatever the reason, the fact remains that nurses are scarce and that many of them, fully trained, are seeking other occupations or are at least remaining out of active practice.

Nurse organizations have been reluctant to condone the services of practical nurses for home duty, or nurses' aides (or other attendants) for hospital duty. Previous proposals for legislation along these lines have met with opposition from the higher echelons of the nursing profession. However, we have all witnessed the invaluable work of Red Cross nurses' aides during the war years and many have seen the satisfactory work of hospital corpsmen in the Army and Navy under the trying conditions of service. Some of these corpsmen were trained for as little as three months. Others were given more extensive schooling. The shorter period was to qualify the corpsman for ward duty, and the longer courses for surgical, laboratory or other specialized services. Their great value in wartime argues for the use of similar attendants in peace. In the words of one California physician, "You don't need a Ph. D. to carry a bedpan."

That the shortage of nursing care is not peculiar to California is demonstrated in the activities of the American College of Surgeons and the American Surgical Association, which have launched nationwide inquiries into nursing and which have hope of arriving at solutions which can be applied here and elsewhere. It can be expected that some system of nurse supervisors and less fully trained attendants will probably emerge from their studies.

The members of the California Medical Association are vitally interested in this problem. They are faced with the diametrically opposed bills now before the Legislature in Sacramento. The decision of their Legislative Committee at this writing is that the proposals in Sacramento should be deferred until a complete re-evaluation of the entire nursing situation can be brought out by the national bodies studying the problem. Then we can hope for a progressive program which will place the proper emphasis on all angles of a complex problem and result in a solution in the public interest.

76th Annual Session

California Medical Association

Los Angeles

April 30—May 3, 1947

CLINICAL CONFERENCE

Acute Transient Pancreatitis Associated with Chronic Cholecystitis and Cholelithiasis

From the University of California Surgical Service of the San Francisco Hospital, February 25, 1947

Presentation of the Case by the House Officer, Dr. Louis Nash:

A 58-year-old white woman entered the hospital January 20, 1947, complaining of abdominal pain of two days' duration. Two days before entry, shortly after lunch, she experienced severe epigastric pain which had a sudden onset, was steady, and remained constant. The pain was sharp and piercing and radiated to the left lower quadrant, but not to the back or shoulder. There was persistent anorexia and nausea and vomiting occurred several times. The vomitus was green in color and did not contain blood. Stools and urine were normal; there were no chills or fever. The patient was completely prostrated and remained in bed from the onset of the episode until entry into the hospital.

Twelve years before, she had had colicky upper abdominal pain, followed by jaundice, which lasted two weeks. At that time the urine was dark and stools were light in color. An episode of pain and nausea similar to the present attack occurred two months before entry, but subsided abruptly after about two hours. The past history was not remarkable otherwise. There were five children. Menses had not occurred for the past ten years, but interview elicited no other menopausal symptoms. Use of alcohol or tobacco was denied.

On entry, the temperature was 38.5°C.; pulse was 92 and respiration 16 per minute; blood pressure was 130/70. Examination showed a moderately obese, cooperative woman appearing about the stated age of 58 years. The abdomen was rounded and showed no scars. There was moderate tenderness to palpation over the entire upper abdomen, most marked in the epigastrium. There was no muscle spasm, but some voluntary guarding. Questionable rebound tenderness was elicited in the epigastrium. No organs or masses were palpable. Peristalsis was hypoactive. Pelvic and rectal examination revealed no tenderness in these areas.

Urinalysis showed no sugar or albumin; urobilinogen was positive 1:1, negative 1:10; microscopic examination showed 20 white blood cells per high dry field. Hemoglobin was 13.4 gm. and white blood count was 21,000 with 84 per cent neutrophiles, 15 per cent lymphocytes and 1 per cent monocytes. The corrected sedimentation rate was 4 mm. in one hour. Serum amylase was 890 units. Total serum protein was 8.4 gm. per cent; albumin, 4.1 gm. per cent; globulin, 4.3 gm. per cent. Icteric index was 11 units. Wassermann reaction was negative. An x-ray film of the abdomen showed no evidence of disease. The gallbladder was not made visible by intravenous cholecystography.

Supportive treatment with intravenous fluids was given. Temperature became normal on the fifth hospital day and abdominal pain and nausea gradually subsided. On the ninth hospital day intravenous cholecystograms were repeated and still showed a non-functioning gallbladder. Additional laboratory studies during the hospital stay are shown in Table 1. The patient was discharged January 30, 1947.

On February 15, 1947, the patient was readmitted to the hospital for cholecystectomy. While at home there was no pain and the patient had been able to eat anything without distress. Examination on admission showed no abdominal tenderness. Temperature was 37.2°C. Serum amylase was 23 units; blood cholesterol, 212 mg. per cent; prothrombin, 90 per cent of normal; hippuric acid, 1.4 gm. White blood cell count was 9,600 with 62 per cent polymorphonuclear cells.

On February 19, 1947, cholecystectomy and exploration of the common bile duct were carried out. No free fluid was present in the peritoneum. Small, pale, 3 mm.-sized areas of old fat necrosis were grossly visible over the mesentery, omentum, and hepatic surface. The gallbladder was of normal size, not acutely inflammed, and contained many small cholesterol calcium bilirubinate stones. The cystic duct was 7 to 8 mm. in diameter and large enough for the smaller stones to pass. The common duct was about twice normal size but thin walled and free from stones or any type of obstruction. The pancreas was twice normal size and very diffusely firm and lobular, particularly about the head.

TABLE 1.—*Serial Laboratory and Clinical Studies*

	Hospital Day							
	1	2	3	4	5	6	7	8
Serum amylase (units).	890	298	290	148	40		253	
Urine amylase (units)..		413	1,057	338	595		795	195
Temperature 38.9°C.		38.4	38.3	37.8	37.3	37.2		
Abdominal pain+++		+	+	none	none	none		
White blood cells.....21,000		13,900					11,500	
Icteric index (units)....	11		5					

The gallbladder was removed and the common duct drained with a "T" tube. Analysis showed the gallbladder bile amylase to be 925 units, and the common duct bile amylase 85 units.

The patient's postoperative course was uncomplicated. Temperature, which was 38.3°C. on the first day, became normal on the second day. Bile drainage was 300 to 350 cc. per day.

CLINICAL DISCUSSION

DR. CLAYTON G. LYON*: The elevated serum amylase levels, and the amylase in the urine and gallbladder bile show that this is a case of acute pancreatitis. Everyone may recall cases which were called alcoholic hepatitis or gastritis, which proved to be acute pancreatitic edema or acute hemorrhagic pancreatitis. It has been found that alcoholism is associated with acute pancreatic disease more frequently than with gallbladder disease. Direct trauma may also cause acute pancreatitis.

DR. ALBERT G. CLARK†: In making a diagnosis on the basis of serum amylase levels, I think it should be emphasized that in a private hospital, where these tests are not done often, the findings are not reliable. Here one is fairly sure of the laboratory work.

DR. RALPH CRESSMAN††: If the patient is acutely ill, immediate removal of blood for the serum amylase may be followed by intravenous administration of the gallbladder dye; in the morning the x-ray may be taken. We have seen patients with acute pancreatitis in whom the first cholecystographic films did not show a visualizing gallbladder but in whom the second films did.

DR. STANLEY G. JOHNSON**: Speculation as to the etiologic factors is interesting. The following pathogenic factors may contribute at some time or other: (1) Bile reflux into pancreatic duct secondary to partial or complete occlusion of ampulla by a stone, (2) Spasm of the ampullary sphincter, (3) Obstruction of the pancreatic duct by stone or spasm, (4) Extension of inflammatory process to the pancreas by anatomical continuity, (5) Erosion of ulcer of stomach or duodenum into the pancreas, (6) Trauma to the pancreas, (7) Excessive alcoholism, (8) Infarction of pancreas. The disease can mimic any acute intra-abdominal process, though at times its manifestations are quite typical, as they were in this patient. It is a common disease that is rarely fatal.

In all cases, but particularly in the atypical case, the serum amylase test supplies our most dependable single datum. There occurs a sharp rise in serum amylase with the onset of the disease which, in the majority of cases, declines sharply to a normal level in 24 to 72 hours. The implications are obvious. When the patient enters the hospital 24 to 48 hours after the onset of symptoms, or even later, elevated urinary amylase readings present at that time can help us to arrive at the diagnosis.

Acute infection of the salivary glands or obstruction of their ducts, and impaired renal function with subsequent retention of amylase, will also result in elevated levels. The former condition should be obvious, and a comparison of serum and urinary amylase levels should indicate the latter, in which the serum level usually is only high enough to make the situation equivocal.

DR. LEON GOLDMAN‡: This patient demonstrates a number of factors. In the literature the percentage of patients with acute pancreatitis who were believed to have associated gallbladder disease is quoted as being 60 per cent. In this hospital, because of the higher incidence of alcoholism in our patients, the percentage of cholecystic disease is much lower. This patient had a history of gallbladder disease and at one time was said to have had symptoms suggestive of a common duct stone with obstructive jaundice. At the onset of the pancreatitis there was persistent vomiting, which is a common symptom in most of these patients. The pain was not over the gallbladder region, and the rigidity was too mild to suggest a perforated peptic ulcer. There was no back pain or glycosuria. A normal blood amylase does not rule out acute pancreatitis, as the amylase level may return to normal a few hours after the onset of the attack of pain. The height of the serum amylase level does not differentiate acute pancreatic necrosis from acute transient pancreatitis, as it is probable that they are both different manifestations of the same pathological process. The urinary amylase is a valuable test when the patient is seen after the early symptoms have subsided, since its elevation lags behind that of the serum amylase. Another interesting finding in this patient is amylase of 925 units in the gallbladder bile, which probably results from a reflux of pancreatic enzymes into the gallbladder.

If the presence of gallstones in this patient is the etiological factor in the production of pancreatitis, then removal of the gallbladder and exploration of the common duct should be of some aid in avoiding a recurrence. Subsequent stricture around the lower end of the common duct due to stenosing fibrous chronic pancreatitis is a rare sequela. Therefore, it is important that the "T" tube which drains the common duct be left in place for three or four months. Cholangiograms should be taken before it is removed. If the tube is removed before the process is completely healed, chronic fibrosing obstruction of the bile duct may develop later. The mechanism in this patient might be due to the reflux of bile, lodgment of a small stone in the ampulla, or spasm of the ampullary sphincter. We know that the serum amylase elevation occurs in acute pancreatitis but not in chronic pancreatitis. These amylase tests actually are simple to do: they are not much more difficult than blood

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sugar tests and should be available in any hospital where patients with acute abdominal conditions are admitted.

The differentiation of acute pancreatitis into the hemorrhagic or transient type is made clinically. In the hemorrhagic type, which is often associated with shock, the mortality rate is approximately 50 per cent, whether or not operation is carried out. If one should operate upon such a patient, one drains the gallbladder and lesser peritoneal sac.

Many of these patients develop abscesses of the lesser peritoneal sac, which occur late and are more an accumulation of necrotic material than a collection of pus. These abscesses usually do not resolve spontaneously, but must be drained. Rarely cysts or pseudocysts of the pancreas form after pancreatitis. It is possible for a patient to have acute pancreatitis associated with acute gallbladder colic, and possibly stones, and to have a recurrence of pain even after gallbladder removal. The pancreatitis may cause the symptoms ascribed to gallbladder disease. The reason for removing the gallbladder is the possibility of the patient's forming other stones in the gallbladder.

80 VOLUNTARY HEALTH PLANS IN 33 STATES COVER FOUR MILLION

"Driving to complete the voluntary health insurance program for the care of the American people is the big job facing local, state and national medical organizations today," according to Thomas A. Hendricks, secretary of the Council on Medical Service of the American Medical Association. "More than 80 plans sponsored by medical societies in 33 states covering 4,000,000 persons are now in operation and the task has just begun.

"The pioneering state of voluntary health insurance is nearing completion and, nationally, we are rapidly entering the development stage. Only two states do not have a plan operating or in the process of formation. Plans for a prepayment program are now being made in 13 states and the District of Columbia. Growth of the plans now in operation has been rapid, the over-all expansion within the last six months being as phenomenal a production figure as has appeared in modern insurance records.

"The enrollment in prepayment plans has accelerated slowly. This was partly due to the difficulties developed in the early experimental stages through which such plans had to pass, and partly to hesitancy on the part of doctors to plunge into an untested field of endeavor. As the number of plans has increased, so too has the acceleration in enrollment. During 1945 the over-all increase was 114 per cent. For the first six months of 1946 the enrollment increase was approximately 40 per cent, bringing the total to nearly the 4,000,000 mark. Indications are that enrollment will reach 5,000,000 by early 1947.

"One of the objectives of the Council on Medical Service is to present the facts in regard to advantages and disadvantages of the various plans, keep records up to date on all new developments in the medical care field, conciliate differences of opinion as to the various forms of insurance—in short, view the entire question impartially and objectively, in order to do everything possible to encourage the wholehearted acceptance by every state society of a practical, workable plan.

"The whole insurance program is still experimental. No one knows the complete answer. Hence, the council hopes to encourage all types of plans that meet the minimum requirements set by the council to maintain the standard of medical service for the protection of the public.

"The council is now set up to do the job of (1) encouraging development of new plans; (2) keeping the profession informed as to developments, and (3) helping to increase the enrollment of plans already established.

"A prepayment division of the council has been created with George Cooley, assistant secretary of the council, keeping in contact with medical society-sponsored plans; Howard Brower, maintaining contact with private insurance groups; and L. S. Kleinschmidt, concentrating his efforts on encouraging rural enrollment and maintaining contact with the newly created consumer-operative movement.

"Prepayment plans have progressed rapidly in the cities, but development in the rural areas has been slow, although several plans have been making notable advancements along this line.

"Jay Ketchum, Lansing, executive vice president of Michigan Medical Service, is acting as consultant for the council.

"Within the past few months private insurance carriers are showing an intense interest in medical and surgical care coverage and, as a result, there have been many conferences both formal and informal. A joint conference was held with representatives of large insurance associations in Chicago in September, with Dr. E. J. McCormick, of Toledo, chairman of the council, presiding.

"One of the most important developments has been the creation of Associated Medical Care Plans, with Dr. H. L. Schriver, of Cincinnati, Ohio, as president; William M. Bowman, San Francisco, vice president; Jay Ketchum, secretary; and Dr. Norman Scott, Newark, N. J., treasurer. In a sense this is a trade organization of plans. It can be of great service in developing reciprocity, details of selling, cooperative actions and procedure. Frank Smith, who has served with the California Physicians' Service, San Francisco, as director of public relations, recently has been appointed A.M.C.P. director. Although A.M.C.P. will be housed with the council and its work integrated with the work of the council and in accord with the policies of the council, it is a legal entity separate and distinct from the council. The board of trustees has allotted through the council sufficient funds to this organization to get started.

"The council is also aided by Frank Dickinson, Ph.D., director of the Bureau of Medical Economic Research of the American Medical Association, and T. V. McDavitt of the A.M.A. staff has served as the legal advisor of A.M.C.P."



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JOHN HUNTON.....Executive Secretary

FOR COMPLETE ROSTER OF OFFICERS, SEE ADVERTISING PAGE 4

NOTICES AND REPORTS

NEWS *of the* DAY *in the* C.M.A.

March 2—Joint legislative meeting today with dentists, pharmacists, dispensing opticians, hospitals, etc. This program now five years old and its worth proved in elimination of inter-professional differences. Bill proposed by each group looked over by all, amendments offered and accepted. Now when we get to Sacramento there is unified opinion among allied groups rather than differences. Two or three of these sessions each legislative year.

March 4—Checking up today on eastern sanitarium where patient of California physician has ended up under poultice treatment for cancer. Looks as though patient would be better off to return to her own doctor here.

March 5-6—Catching up with first-of-month business, correspondence, billing, etc. Funny how the mail can accumulate without notice, each item posing another problem and each demanding attention right now. Somehow the stack never seems to get any lower but somehow it manages to get done without too big a backlog piling up.

March 7—Final touches put on Executive Committee meeting agenda and transportation picked up for San Francisco-Los Angeles. What with busy programs for everybody, arranging meetings is not so easy as it used to be. All sigh with relief when a quorum is assured.

March 8—Executive Committee meets in Los Angeles, discusses mutual problems with president of New Mexico Physicians' Service, a prepayment plan patterned after C.P.S and actively sponsored by C.M.A. Plan has been operating for eight months and shows visible signs of progress. Management appears splendid and prospects good. Executive Committee to report findings to Council next week. C.P.S. Executive Committee also meets in Los Angeles today, preparatory to Trustees' meeting Sunday.

March 9—C.P.S. Trustees meet, cover full-day agenda and vote to hold regular metings third Sunday of each month from now on. Business has grown to size where meetings every eight weeks, more recently every six, no longer suffice to meet demands. Comparison of monthly business for past five years shows growth from $70,000 monthly revenue to $620,000. Add that to service rendered for Veterans' Administration and annual business runs to better than $12,000,000. Which is no peanuts, nor hay.

March 10-11—Finishing touches put on printing of Annual Session program. Pre-convention number of Journal to be March issue this year and all set for it. Programs are all timed, speakers limited to set periods, and interval-timers readied for chairmen. Now you can go to hear one paper in one section and count on being on time to hear another in another meeting. Committee on Scientific Work has worked out all details down to final minute and it looks good on paper.

March 9—Income tax day. 'Nuff said. Advisory Planning Committee meets in morning. Council at lunch and all afternoon, recesses until Sunday. Council meetings now planned as day-and-a-half affairs to cover business presented.

March 16—Council reconvenes and sits from 9:30 a.m. to 5:50 p.m. Thirty men for eight hours plus, on top of five hours plus on Saturday—that's a lot of man-hours. The C.I.O. would demand double for overtime on that schedule.

March 17—Legislature reconvenes in Sacramento, putting on two-ring show of regular and special sessions running concurrently. If the highway problems of the special session can be resolved, the 4,100 bills introduced in the regular session can be put on the calendar. Fortunately, only 450 of these affect the public health or the practice of medicine but that takes a lot of watching. For the next few months we can figure on a lot of time spent on legislative activities.

March 18—More conference on New Mexico situation and on general business. Visit from

another delegate on way to Honolulu to look into proposal for compulsory health insurance there. Seems to be catching.

March 19—Council minutes prepared, and a long set of minutes they are, complete with 33 pages taken by court reporter on stenotype machine. Most of the day spent on typewriter on minutes and on other writing which needs doing and takes time which seems lacking.

March 20—California delegation off to Salt Lake City today for annual meeting of United Public Health League. Delegates from ten states expected and report due from Washington, D. C., representative. Program is to set up office on train and work out details enroute. Good system, too.

March 22—United Public Health League meets in Hotel Utah, which is crowded to capacity by high school students from all over Utah, here for annual high school basketball tournament. More bobby sox seen in hotel lobby than at any time since Sinatra's last appearance. Meeting big success; state representatives enthusiastic over League program.

March 24—Back to Sacramento and San Francisco. Committee hearings getting under way on varions bills. From now on it's keep your eyes open and your powder dry. Many bills lead feline lives and it's hard to tell when they're dead. By the same token, you can't count on a bill having passed until it's voted, printed, engrossed and signed.

March 27-28—The Cancer Commission of the C.M.A. conducted a very successful refresher course on Neoplastic Diseases at Stanford and University of California Medical Schools. Regrettable that all of the applicants could not be registered in this excellent and informative session. This is not the last of the courses, and hope is that, in the future larger meeting rooms may be secured.

Council Meeting Minutes

Tentative Draft, Minutes of the 339th Meeting of the Council, California Medical Association San Francisco, March 15-16, 1947

The meeting was called to order by Chairman Edwin L. Bruck at 1:30 p.m., Saturday, March 15, 1947, at the Fairmont Hotel, San Francisco.

1. *Roll Call:*

Present were President McClendon, President-Elect Cline, Speaker Askey, Vice-Speaker Alesen, Secretary Garland, Editor Wilbur and Councilors Bruck, Shipman, Crane, Henderson, Anderson, Kneeshaw, Kindall, MacDonald, Green, Cherry, MacLean, Moody, Thompson and Regan.

Absent: Councilor Johnston. A quorum present and acting.

Present by invitation were Doctor C. L. Cooley, secretary of California Physicians' Service; Doctor D. H. Murray, chairman of the Committee on Public Policy and Legislation; Mr. Clem Whitaker, public relations consultant; Mr. W. M. Bowman, executive director of C.P.S.; executive secretaries Kihm of San Francisco, Young of San Diego, Waterson of Alameda and Donovan of Santa Clara County; Mr. Howard Hassard and Mr. Hartley F. Peart, legal counsel; Mr. John Hunton, executive secretary and Mr. William P. Wheeler, assistant executive secretary.

2. *Approval of Minutes:*

(a) Minutes of the 338th Council Meeting held January 12, 1947, were approved.

(b) Minutes of the 200th Meeting of Executive Committee, January 22, 1947, were approved.

(c) Minutes of the 201st Meeting of Executive Committee, February 5, 1947, were approved.

(d) Minutes of the 202nd Meeting of Executive Committee, March 8, 1947, were approved.

3. *Membership: Wolff and Bayer Appeals.*

At this point, the Council went into executive session, with Messrs. Hassard and Hunton present, to hear an appeal by Doctors Ernst Wolff and Leona Bayer of San Francisco on the ruling by the San Francisco County Medical Society that their memberships had lapsed by reason of nonpayment of dues before the final date set for such payment. A stenotype reporter was present and recorded the entire proceeding.

(a) A report of membership as of March 14, 1947, was received.

(b) On motion duly made and seconded, it was voted to reinstate to active membership 14 members whose 1946 dues had been received since January 12, 1947.

(c) On motion duly made and seconded, it was voted to grant Retired Membership to 38 members who had been nominated by their respective county societies.

(d) On motion duly made and seconded, it was voted to grant Associate Membership to six members nominated by their respective county societies.

(e) On motion duly made and seconded, Doctor G. David Kelker of San Luis Obispo County was elected to Life Membership under the terms of provision (1) of Article IV, Section 1(e) of the Constitution. In this connection, it was moved by Shipman, seconded by Henderson and unanimously voted that legal counsel be instructed to reword Article IV, Section 1(e) of the Constitution in order to eliminate possible ambiguity. Such rewording would be presented by the Council as a

proposed Constitutional amendment to the House of Delegates.

(f) A request by the San Francisco County Medical Society to grant retired membership to two members whose applications did not conform to Constitutional requirements was tabled.

(g) A request by the Sacramento Society for Medical Improvement for possible relief from dues for three returned veteran members now engaged in postgraduate study was discussed. The Secretary was instructed to reply to the effect that such relief was not within the jurisdiction of the Council and to suggest that such members either be granted Associate membership or drop out of membership during the terms of their postgraduate studies.

4. *1947 Annual Session:*

(a) Doctor H. V. Allington of Alameda County appeared before the Council with a request from the Section on Dermatology that one of the 1947 Annual Session guest speakers be selected from a proposed list of dermatologists as recognition of the 25th anniversary of the formation of this section. The Chairman of the Committee on Scientific Work referred to correspondence over a period of several months on this subject, and it was pointed out that the 1947 program had already been completed and set in type preparatory to printing. On motion duly made and seconded, it was unanimously voted that the Chairman of the Committee on Scientific Work apprise the representatives of the Section on Dermatology of the condition which now exists with regard to the program for the 1947 Annual Session and call attention to the correspondence which has already taken place on this request.

(b) Doctor Kindall outlined some proposed entertainment for the President's Dinner at the Annual Session. It was moved by Alesen, seconded by Thompson and voted that Doctor Kindall be authorized to continue with such plans at a cost not to exceed $350.

(c) On motion duly made and seconded, it was voted to meet the request of the Woman's Auxiliary for an appropriation of $750 to help defray the expenses of the annual meeting of the Auxiliary.

(d) Doctor Askey brought up a question which had been raised in regard to a proposed Constitutional amendment introduced in the 1946 House of Delegates, the effect of which would be to increase the size of the Council and which therefore would call for the election of additional Councilors. In order to remove any possible ambiguity as to the effective date of such amendment, if passed, Doctor Askey requested that the Council set as the first order of business for the second meeting of the 1947 House of Delegates the consideration of two constitutional amendments introduced in 1946. On motion duly made and seconded, the Council so ordered.

5. *Financial:*

(a) Reports of March 14, 1947, bank balances, February receipts and expenditures and balance sheet as of February 28, 1947, were received.

(b) On motion by Kneeshaw, seconded by Anderson, it was voted that U. S. Treasury 2½% bonds of 1966-1971 maturity be purchased with funds on hand.

(c) A report by California Physicians' Service on the application of funds advanced by the C.M.A. to aid C.P.S in meeting additional expenses in community enrollment drives was received.

At this point, 5:50 p.m., the Council recessed until 9:30 a.m., March 16.

6. *Complete Service Bureau of San Diego:*

Kenneth Young, executive secretary of the San Diego County Medical Society, outlined the moves made by Complete Service Bureau of San Diego to request acceptance of that organization by the Council of the C.M.A. and by Associated Medical Care Plans, Inc., of the A.M.A. Mr. Hunton presented the formal request of Complete Service Bureau for Council approval. After discussion it was moved by Cline, seconded by Green and unanimously voted that approval of Complete Service Bureau by the Council be denied.

7. *Public Policy and Legislation:*

Mr. Von T. Ellsworth, Research Director of the California Farm Bureau Federation, appeared before the Council and urged C.M.A. approval of Assembly Bill 1247, which would permit county boards of supervisors to make beds in county hospitals available to all residents of the county regardless of financial status. He recalled meetings held between Farm Bureau and C.M.A. representatives in former years on this subject and stated that an agreement was reached by these representatives in regard to legislation then pending (1940-1941) that either organization would notify the other of any departure in its then legislative program.

After full discussion, it was moved by Cline, seconded by Shipman and unanimously voted that the Council disapprove AB 1247, that the California Farm Bureau Federation be notified of this decision with a full explanation of the reasons for it; namely, that the hospital bed shortage could best be met through additional hospitals constructed by community effort or under the hospital district law and with financial help from federal and state governments.

Dr. Murray, Mr. Reed and Mr. Hassard discussed a long list of measures now before the Legislature and the recommendations of the Committee on Public Policy and Legislation were approved by the Council.

On motion by Cline, seconded by Anderson, it was voted that the Council go on record as not approving any legislation the full content of which is not known, that the Executive Committee be likewise put on record and the Committee on Public Policy and Legislation be so advised.

8. *California Physicians' Service:*

Doctor C. L. Cooley and Mr. W. M. Bowman appeared before the Council and presented a report

showing the present C.P.S. deficit at $120,996, or the equivalent of six days' income at current revenues. This compares with 19 days' deficit in March, 1946, 28 days in 1945, and 27 days in 1944. During this period, the operating costs of C.P.S. have been reduced from 19.5 per cent of revenues in 1944 to 19.0 per cent in 1945, 16.7 per cent in 1946, and 14.5 per cent in 1947. Membership has risen consistently during this period to a total at present of some 432,000.

Doctor Cooley also reported that professional relations of C.P.S. are at their best point since formation of the service. He presented a study of California incomes, showing that 57.2 per cent of the people are receiving annual wages below $3,000.

Doctor Murray reported that the present membership of C.P.S., in excess of 400,000, would represent a big help in his legislative work.

On motion by Moody, seconded by Green, it was unanimously voted that the Council express to the Trustees and the administration of C.P.S. the appreciation of the Council for the splendid progress report submitted.

On motion by Kindall, seconded by Anderson, it was voted to request that the recommendations of the "Chandler Committee" be reported on by the administration of C.P.S. at the meeting of C.P.S. Administrative members.

On motion by Cline, seconded by Shipman, it was voted that it be the sense of the Council that the recommendation contained in the "Chandler Committee" report calling for a survey of the business matters and practices of C.P.S. has been fulfilled by the survey undertaken by McKinsey & Co.

9. *Palo Alto Clinic:*

Doctors Bruck and Cline reported on conferences held by them with Dr. Donald Tresidder, President of Stanford University, with Doctor Russel Lee and with Doctor George Houck, health director of Stanford. There were read several letters, including one from Doctor Lee in which he suggested that the approval of physicians to treat Stanford students, where such physicians are not members of the Palo Alto Clinic, be placed in the hands of the Stanford dean rather than the health director. There was also a letter from Stanford University approving such a change. Doctor Kneeshaw read a letter from Doctor H. J. Lane of Palo Alto on behalf of Palo Alto physicians who are not members of the Clinic. After considerable discussion, it was agreed that Stanford University is satisfied with the quality of medical care now being received by the students, that the contract has been amended to eliminate most of the original objections on ethical grounds and that the Santa Clara County Medical Society has expressed itself as willing to approve the new contract as amended by the latest proposal to give the Stanford dean authority over the approval of physicians outside the Clinic membership. An original motion by McClendon, seconded by Shipman, was amended and was voted as follows:

RESOLVED, that, with the understanding that the Palo Alto Clinic-Stanford University contract will be amended and carried out in conformity with the proposal made by Dr. Russel V. Lee under date of March 13, 1947 and the consent thereto expressed by officials of Stanford University, the Council of the C.M.A. does not consider such contract to be in violation of the principles of medical ethics and therefore approves such contract; and be it further

RESOLVED, that the Chairman of the Council use his good offices to urge the administration of Stanford University to insert information in its student manual and other publications which will not be prejudicial to the interest of physicians who are not members of the Palo Alto Clinic.

10. *Medical Society of the State of California:*

There was discussion of the reports on Medical Society of the State of California which had previously been made to the Executive Committee and the analysis prepared by legal counsel at the request of the Chairman of the Executive Committee. Doctor Regan discussed the two-way function of M.S.S.C. in (1) carrying on an education campaign on malpractice among all physicians, and (2) assuring personal legal service to those members against whom suits or threats of suits were brought. He stated his belief that the first function was not being effectively carried on because not all members of the Association read the information supplied. He also stated that in 1940 he had expressed the belief to M.S.S.C. that the dues of that organization, at least in the Los Angeles area, were not being effectively expended and that the educational function should be carried on by the Association. In reply to a question by Doctor Cline, Doctor Regan stated that he favored the assumption of these medical defense functions by the C.M.A., with the understanding that the administration of these functions should be on a county level.

After this discussion, it was moved by Shipman, seconded by Regan and unanimously voted that the C.M.A. Committee on Medical Defense be instructed to prepare a plan in conjunction with legal counsel whereby the services now provided by the Medical Society of the State of California could be furnished to all members of the California Medical Association.

11. *Public Relations:*

Mr. Whitaker reported on the current legislative situation and the prospects of defeating proposals inimical to sound medical practice. He also reported on the progress of enrollment campaigns for voluntary health insurance. On motion by Cline, seconded by Kindall, it was voted that Mr. Whitaker plan at least one year ahead on a proposed C.M.A. public relations campaign and be prepared to discuss his plans with the Council and the House of Delegates at the 1947 annual session.

12. *Advisory Planning Committee:*

Mr. Hunton reported on a meeting of the Advisory Planning Committee on March 15, 1947, with representatives of Mr. Whitaker's office in an

effort to secure greater effectiveness from the Voluntary Health Insurance Weeks planned for the metropolitan areas. He stated that this meeting had resulted in an agreement that such campaigns would be individually drawn up for the metropolitan areas and would thereby make the campaigns more effective.

13. *New and Miscellaneous Business:*

(a) The Chairman read a letter from Doctor Hugh T. Jones asking that he be relieved of duties on the C.P.S. fee schedule committee and suggesting that Doctor John G. Manning of Pasadena be named in his place. With the consent of the Council, the Chairman suggested this change be made.

(b) On motion by MacDonald, seconded by Anderson, it was voted that the committee on Industrial Accident Commission fee schedules should meet at the time of the Annual Session and that members be invited to appear and offer suggestions for changes in the existing fee schedule.

(c) The Chairman announced and the Council approved the appointment of Doctors Frank A. MacDonald, H. Gordon MacLean and C. V. Thompson as representatives of the C.M.A. on an advisory committee on hospitalization to the State Department of Public Health.

14. *Next Meeting:*

It was agreed that the next Council meeting should be at 12 noon on Tuesday, April 29, 1947, at the Hotel Biltmore, Los Angeles.

15. *Adjournment:*

The meeting was adjourned at 5:30 p.m.

Your Secretary and Editor Visit C.P.S. Offices

By L.H.G. and D.L.W.

Quite recently we spent several hours visiting with the administrators of California Physicians' Service. Our visit included a tour of the C.P.S. offices, where we had opportunity to see the operations that are entailed in the complex business of bringing prepaid medical service to the people of California.

We began our tour where the new groups originate — the Sales Department — and followed the new members' association with C.P.S. completely through the organization.

In the Sales Department we were shown the sales literature, which describes the benefits that are available under the medical and surgical contracts. We were told about the comprehensive sales program whereby each month between twenty and thirty thousand new members are brought into the ranks of voluntary health coverage supporters.

From the Sales Department, we followed the applications of the new members into the Enrollment and Cashiering Departments. While there, we watched the applications being inspected and assigned the distinctive numbers which will henceforth identify the beneficiary in the files of C.P.S., and in doctors' offices, hospitals and laboratories throughout the state. In this same department, another group of employees was concerned with the job of collecting dues from some 2,500 different groups in Northern California.

Our next stop was the I.B.M. (International Business Machines) room. Here, noisy but efficient mechanical sorting and analyzing machines operate at high speed. In this department also (simultaneously with the identification card printing) a card is cut for a special file called "Positive Identification." This special file is maintained in order that each beneficiary member's history with C.P.S. can be secured at a glance. Special coding, read by trained personnel, furnishes the inquirer with such information as: type of contract held, payment or non-payment of dues, whether the established waiting periods have been completed, etc. This file is used principally for immediate identification when a doctor or his secretary calls in for a check on eligibility.

Now the preliminary registration work has been completed, and outside of the routine billing and collection procedures, C.P.S. has little or no further contact with the member . . . until he needs medical attention.

The beneficiary's next contact with C.P.S. comes through the physician he chooses from the list of over 7,800 who are participating in the program.

Our next stop then, was the Medical Claims Department. This is the place where the doctor's statement for services rendered (submitted on the regular C.P.S. forms) is priced from the fee schedule. We were told that about 80 per cent of the claims received could be classified as routine, and therefore could be handled by the pricing clerks. The remaining 20 per cent require the attention of the Medical Director or the Assistant Medical Director.

The claims are priced, audited and then sent to the statistician. It is here that invaluable records are being compiled which add strength to the foundation upon which prepaid medical service is being constructed.

Valuable statistics are being compiled here, also, which within a few years will be of inestimable value to the economics of medicine. From these files, investigators will be able to study thousands of case records.

Our question at this time, after seeing the thousands of medical claims being processed, was: "How do you keep your physician members up to date on these rapid developments in the program?"

We found the answer in our last stop, The Professional Relations Department. Here we saw forms being sent out to replenish the supplies in doctors' offices throughout all of Northern California. Since this was only the northern operation, a similar department is in operation in the Los Angeles office. We examined the huge rotary files that house the names and specialties of all of the member physicians. These files are used to compile the new lists of physician members, and to refer, on a rotating basis, veterans

who fall under the provisions of the C.P.S.-Veterans' Adminstration contract. We were introduced to some of the employees who call at the offices of participating physicians and keep them up to date on all phases of the refinements of the program. Although this seems like a monumental task, we were told that nearly 6,000 physicians' offices were personally contacted during 1946.

It was an impressive tour—one which showed us that selling and operating a state-wide prepaid medical service plan is a complex but deeply interesting job. And we were convinced that in our own state, our own C.P.S. is doing it in a way that should make each of us who are participating physicians proud of the part we are playing in its development.

Proposed Amendments To C.M.A. Constitution

(SECOND PUBLICATION)

Second publication of two resolutions to amend the Constitution of the California Medical Association, which were introduced in the House of Delegates at the 1946 annual meeting, is made herewith:

RESOLUTION

Be It Resolved, That Section 12 of Article X of the Constitution of the California Medical Association is hereby repealed.

RESOLUTION

Resolved, That the Constitution of the California Medical Association shall be amended:

1. By deleting from Article VII, Section 1, Paragraph 4, the words, in line 6 thereof, "or more";

2. By adding to Article VII, Section 1, Paragraph 4, at the end thereof, the words, "and provided further that when any one councilor district shall have more than 1,500 members, one additional councilor-at-large for each additional 750 members or major fraction thereof shall be elected from its membership";

3. By adding to Article X, Section 1, Paragraph 1, at the end thereof, the words, "plus the additional councilors-at-large, as provided herein, in Article VII, Section 1";

4. By adding to Article X, Section 6, Paragraph 1, at the end thereof, the sentence, "Additional councilors-at-large, as provided herein, shall be elected each year when a vacancy exists or is created by increased membership in a councilor district"; and

5. By changing Article X, Section 9, Paragraph 3, thereof, to read as follows: "When a component county society shall have fifteen hundred members two of the councilors-at-large shall be elected from its membership; and when a component county society shall have more than 1,500 members, one additional councilor-at-large for each additional 750 members or major fraction thereof, as herein provided, shall be elected from its membership. The district councilor and two of the councilors-at-large shall be elected in different years in calendar sequence. The additional councilors-at-large shall be elected as herein provided."

In Memoriam

Casey, Timothy Joseph. Died from a heart attack, at Oakland, February 10, 1947, age 58. Graduate of the Creighton University School of Medicine, Omaha, Nebraska, 1916. Licensed in California in 1921. Doctor Casey was a member of the Alameda County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✣

Cook, Clarence Weiny. Died after a brief illness, at Los Angeles, March 5, 1947, age 71. Graduate of the University of Southern California School of Medicine, Los Angeles, 1908. Licensed in California in 1908. Doctor Cook was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✣

Deering, Walter Everett. Died at Los Angeles, March 8, 1947, age 70. Graduate of the University of Southern California School of Medicine, Los Angeles, 1902. Licensed in California in 1902. Doctor Deering was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✣

Green, Ray Carr. Died at San Bernardino, on January 16, 1947, age 47. Graduate of Northwestern University Medical School, Chicago, Illinois, 1928. Licensed in California in 1929. Doctor Green was a member of the San Bernardino County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✣

Lockwood, Myrtle Spencer. Died after a two months' illness, at National City, California, on February 5, 1947, age 70. Graduate of the American Medical Missionary College, Battle Creek, Michigan, and Chicago, Illinois, 1900. Licensed in California in 1901. Doctor Lockwood was a Retired Member of the San Diego County Medical Society and the California Medical Association.

✣

Pray, Ralph Edgar. Died of a brain tumor, at San Francisco, on December 18, 1946, age 50. Graduate of the University of Pennsylvania School of Medicine, Philadelphia, 1925. Licensed in California in 1941. Doctor Pray was a member of the Monterey County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✣

Preston, Addison Webster. Died of uremia, at Visalia, on February 5, 1947, age 63. Graduate of the University of Vermont College of Medicine, Burlington, 1907. Licensed in California in 1909. Doctor Preston was a Retired Mem-

ber of the Tulare County Medical Association and the California Medical Association.

✣

PRIEN, ROLAND HENRY. Died of a heart ailment, at Gilroy, January 23, 1947, age 66. Graduate of the University of Colorado School of Medicine, Denver, 1919. Licensed in California in 1920. Doctor Prien was a Retired Member of the Santa Clara County Medical Association and the California Medical Association.

✣

SWIRE, FRANK PAUL. Died of injuries received in an airplane accident, at Santa Rosa, December 25, 1946, age 36. Graduate of the University of Colorado School of Medicine, Denver, 1940. Licensed in California in 1941. Doctor Swire was a member of the Sonoma County Medical Society and the California Medical Association.

TARNUTZER, BENJAMIN CHARLES. Died of a heart attack, at Los Angeles, on November 11, 1946, age 69. Graduate of Western Reserve School of Medicine, Cleveland, Ohio, 1902. Licensed in California in 1920. Doctor Tarnutzer was a Retired Member of the Los Angeles County Medical Association, the California Medical Association, and an Affiliate Fellow of the American Medical Association.

✣

THOMASON, GEORGE. Died of a heart attack, at Los Angeles, on March 10, 1947, age 74. Graduate of Jefferson Medical College of Philadelphia, Pennsylvania, 1899. Licensed in California in 1901. Doctor Thomason was a Retired Member of the Los Angeles County Medical Association, the California Medical Association, and an Affiliate Fellow of the American Medical Association.

Dr. George Thomason

Dr. George Thomason, for many years one of the foremost surgeons on the Pacific Coast, died on March 10, 1947, in Los Angeles, California. Dr. Thomason was born in Camden, New Jersey, on November 6, 1872.

He attended college in Battle Creek, Michigan, and later began the study of medicine in the American Medical Missionary College. He completed his undergraduate medical education at Jefferson Medical College in Philadelphia, where he received his degree of doctor of medicine in 1899. Specializing in surgery, he became assistant surgeon at the Battle Creek Sanitarium; and in 1904, having received a diploma as Licentiate of the Royal College of Physicians and Surgeons in Dublin, Ireland, he accepted the position as medical director of the Cape Sanitarium in Capetown, South Africa, where he spent the following seven years.

Returning to the United States in 1911, he became the superintendent of the St. Helena (California) Sanitarium, and in 1914 came to Los Angeles, where he entered the private practice of surgery, and at the same time became professor and head of the department of general surgery in the College of Medical Evangelists. He held this position until the time of his death. Since 1915 he had been chief of the surgical staff at the White Memorial Hospital, and had served in a similar capacity at the Los Angeles County Hospital.

He was also consulting surgeon to the Southern Pacific Railroad Company, the Glendale and Loma Linda Sanitariums, and the Los Angeles Police Department. Since 1934 he had been a member of the Board of Medical Examiners of the State of California.

He was a Fellow of the American College of Surgeons, was certified by the American Board of Surgery, and was a member of the American Medical Association, the California State and Los Angeles County Medical Associations, the Western Surgical Society, and the Los Angeles Academy of Medicine.

Tennis and fishing were his chief recreations, and for many years he was an active member in the Los Angeles Tennis Association.

Dr. Thomason was a man of high moral character, was greatly admired by his friends and patients, and was a teacher of unusual ability.

He is survived by his widow, Mrs. Enanora Thomason, and by his daughter, Kathryn, who is the wife of Dr. Archie A. Steele of Los Angeles.

House of Delegates Meetings

First meeting of the C.M.A. House of Delegates is scheduled for Wednesday, April 30 at 4:30 p.m., NOT the afternoon of May 1 as shown in the March issue of CALIFORNIA MEDICINE. The second meeting will begin at 4:30 p.m. Friday, May 2. Both meetings will be in the Music Room.

NEWS and NOTES

NATIONAL • STATE • COUNTY

LOS ANGELES

Dr. George D. Wells has replaced Dr. Harry F. Becker as health officer of the City of Vernon, Los Angeles County.

James J. Short, M.D., formerly of New York City, who for many years was associated with the New York Postgraduate Medical School and Hospital, has been appointed to the faculty of the **College of Medical Evangelists** as associate professor of Medicine. He is director of the basic science course in Internal Medicine offered by the Graduate School of Medicine.

The College of Medical Evangelists Graduate School of Medicine, Los Angeles, announces the **offering of courses** on a full-time basis in the basic sciences and their clinical application, to graduate students in Internal Medicine, General Surgery, Obstetrics and Gynecology, Otolaryngology, and Urology, October 1, 1947, to June 11, 1948. **Part-time postgraduate courses** are also offered from time to time through the year. Further information may be had from the Dean, Graduate School of Medicine, 312 North Boyle Avenue, Los Angeles 33.

Dr. Leroy B. Sherry, Pasadena physician, was recently elected president of the Pacific Coast Surgical Association. Dr. Sherry, who served as vice-president of the Association last year, was elected president for the coming year at the group's annual five-day conference in Seattle and Victoria, British Columbia.

Dr. Nathaniel Berman, who during the war was attached to the U.S. Army Medical Corps, has opened offices at 5330 Lankershim Blvd., **North Hollywood.** Dr. Berman is an eye physician and surgeon.

Dr. J. M. Furstman has been named head of the Santa Monica District Health Office to succeed **Dr. W. F. Reasner,** who retired March 1. Dr. Furstman was head of the Health Office at Monrovia for 24 years.

"Shall the Government Practice Medicine?" was the topic for a talk given recently by **Dr. E. T. Remmen,** president of the Los Angeles County Medical Society, before the Burbank Optimists Club. Dr. Elmer Zeiss was program chairman.

Dr. Lowell S. Goin, president of the Board of Trustees of California Physicians' Service and past president of the California Medical Association, was guest speaker at a recent Rotary Club luncheon in Glendale. His subject: **"Health Insurance and the Nation."**

NAPA

Major George T. Pomeroy, formerly chief surgeon at the Veterans Home, has retired at the age of 70. Dr. Pomeroy, who has been a member of the Home medical staff since 1933, is now on terminal leave recovering from an operation.

SAN DIEGO

San Diego County has increased the salaries offered for four positions in the County Hospital which it is seeking to fill, and at the same time has **extended the time for receiving applications** for the posts. The positions and the salary range: Pathologist, up from a range of $483-530 per month to a range of $559-616; Radiologist same as Pathologist; Physician Anaesthetists up from $460 per month to $532; Medical Director TB up from $587 per month to $647. Filing time for applications has been extended to May 12, 1947. **Application forms** are available from Mrs. Marie B. Cook, Department of Civil Service and Personnel, 212 Civic Center, San Diego.

The San Diego County Medical Society's business and administrative activities have been **moved into new offices** at Room 101, Medico-Dental Building, San Diego. The San Diego County Branch, California Division, American Cancer Society also occupies space with the Medical Society.

Dr. Clark M. Johnson, Associate Clinical Professor of Urology, University of California Medical School, spoke at the regular March scientific meeting of the County Society on "Difficulties in the Early Clinical Recognition of Hydronephrosis."

SAN FRANCISCO

Dr. Frederick C. Cordes, clinical professor of opthalmology at the University of California, recently delivered the third annual Sanford R. Gifford Memorial Lecture to the Chicago Opthalmological Society.

A distinguished doctor in the field is chosen each year for the lecture in honor of the late Dr. Gifford, who was a member of the faculty at the Northwestern Medical School in Chicago.

An Eye Bank—a central registry through which healthy corneas may be obtained for transplanting into the eyes of persons blinded because of damaged corneas—has been **set up by Stanford University** in the Stanford University Hospital, San Francisco. Like eye banks already operating in New York, Boston, and Chicago, the Stanford bank will have as its functions the registry, collection, preservation and swift transportation of donated eyes so that they will be available for use by qualified eye surgeons on the Pacific Coast. Arrangements for swift transportation, which is necessary because of rapid deterioration of the tissue once it is removed from the donor, have been made with airlines, railroads and bus lines. Sources of corneas for transplantation are eyes removed from living persons because of injury or disease which has left the cornea undamaged, and eyes removed soon after death.

New appointment of two professors and promotion of 19 members of the faculty of **Stanford University School of Medicine** was announced last month by

Donald B. Tresidder, president of the University.

Dr. Charles E. McLennan, professor and head of the department of obstetrics and gynecology at the University of Utah School of Medicine, was named to a similar position at the Stanford School of Medicine in San Francisco.

Dr. Josephine R. Hilgard, director of the child guidance clinic at Children's Hospital in San Francisco, was appointed associate clinical professor of medicine.

Dr. William H. Northway was promoted to an associate professorship in medicine. **Other promotions:** To clinical professorships—Dr. Garnett Cheney, in Medicine, Dr. Ann Peril Purdy, in Pediatrics; To Associate Clinical Professorships—Dr. John Wesley Cline, in Surgery, Dr. Robert Scarborough, in Surgery; To Assistant Clinical Professorships—Dr. Henry Dean Brainerd, in Pediatrics, Dr. John Ford Card, in Medicine (Neuropsychiatry), Dr. Chester L. Cooley, in Obstetrics and Gynecology, Dr. Francis Cox, in Surgery (Bone and Joint), Dr. Frederick Fender, in Surgery, Dr. Frank Gerbode, in Surgery, Dr. Lot D. Howard, in Surgery, Dr. Frank Lusignan, in Surgery, Dr. Willard M. Meininger, in Medicine, Dr. Walter Work, in Surgery (Otorhinolaryngology); To Clinical Instructors—Dr. Edward C. Defoe, Jr., in Pediatrics, Dr. Kalmen Klinghoffer, in Medicine, Dr. Robert Lee Smith, Jr., in Medicine, Dr. Philip R. Westdahl, in Surgery.

SAN JOAQUIN

Discharged from the Navy in October, **Dr. Henry C. Rixford** has opened offices in the Flor Building, 2013 Pacific St., **Stockton.** Dr. Rixford formerly practiced in Stockton from 1934 until 1939, when he moved to Sonora. While in the Navy, he was in charge of the orthopedic ward at Treasure Island Hospital.

VENTURA

Dr. Donald P. Musgrave, who has been practicing in Fillmore for almost a year, left recently for Washington, D. C., where he will study dermatology for three years. He then plans to return to practice in Ventura County.

GENERAL

The 13th Annual Meeting of the **American College of Chest Physicians** is scheduled to be held at the Ambassador Hotel, Atlantic City, New Jersey, June 5 to 8. The oral and written examinations for Fellowship will be held on the first day of the meeting, June 5. **Applicants for Fellowship** in the College who plan to take these examinations should communicate now with the Executive Secretary, American College of Chest Physicians, 500 North Dearborn Street, Chicago 10, Illinois.

Five physicians have recently been added to the staff of the **California State Department of Public Health. Dr. George T. Palmer,** Consultant in Public Health Administration, Division of Administration, has come to the department following an assignment with the United States Public Health Service. **Dr. J. Walter Hough,** Medical Officer, Bureau of Adult Health, is on loan from the U. S. Public Health Service. Before joining the department he served with the Oklahoma Health Department. **Dr. Marion Josephi,** Consultant in Rheumatic Fever, Bureau of Maternal and Child Health, has had wide experience in children's cardiac clinics and hospitals in this country and abroad. She served with the U. S. Navy immediately before her appointment to the California post. **Dr. Joseph A. Moore,** Acting Chief, Acute communicable Disease Service, takes up his duties following special work on the department's blood bank study which he recently completed for the Division of Laboratories. **Dr. Yoshiye Togasaki,** Medical Officer, Bureau of Maternal and Child Health, will assist in the administration of the Emergency Maternity and Infant Care and the crippled children's programs. She served with U.N.R.R.A. and was in charge of displaced persons camps in southern Italy during the war.

The American Academy of Allergy, in cooperation with the Medical Faculty of the University of California, will offer an Orientation **course in Clinical Allergy** for General Practitioners at the University of California Hospital, San Francisco, from July 7 to 11 inclusive, 1947, under the auspices of Medical Extension, University of California. Details of the course (which has received the approval of the Committee on Education of the American Academy of Allergy) will be announced later.

Rules governing the annual award of the $200 "Foundation Prize" of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons for the best pertinent manuscript of 5,000 words or less have been set up by the association. Copies may be obtained from James R. Bloss, M.D., Secretary, 418 Eleventh Street, Huntington, W. Virginia.

An intensified **student nurse enrollment program** will be conducted on a nationwide scale by the American Hospital Association throughout 1947, according to announcement by John H. Hayes, Association president. In an effort to overcome the acute shortage of nurses, the association plans **direct aids to hospital schools** of nursing with a backdrop of national publicity, Mr. Hays said. The Association's Board of Trustees voted an expenditure of 10,000 for the campaign, and hospital schools of nursing and other organizations affected by the shortage of nurses are being asked to contribute financial help.

INFORMATION

The Poliomyelitis Coordinating Council's Role in the 1946 Epidemic in Los Angeles*

California's experience with poliomyelitis in 1946 had two interesting aspects: first, the concentration of cases in one area, Los Angeles; and, second, the manner in which that community mobilized its resources to meet the epidemic.

Of 2,166 cases reported during the year in the state as a whole, 1,306 were located in Los Angeles County. The sharpness of the epidemic becomes even more apparent when one considers that 1,014 cases occurred in Los Angeles County during the ten-week period, July 28-October 11, 1946.

Early in August it was evident that an epidemic was impending. At the invitation of the State Department of Public Health, representatives from the County General Hospital, private hospitals, local chapters of the National Foundation for Infantile Paralysis, American Red Cross and Sister Kenny Foundation, County Medical Association, and the Los Angeles health departments formed a Poliomyelitis Coordinating Council.

Each of these agencies had a distinct contribution to make. The Council met periodically throughout the epidemic period in order to integrate their activities.

Acute cases were hospitalized during their quarantine period at the County General Hospital. Thereafter those requiring further hospitalization were transferred to facilities—both private and public hospitals—for convalescent care under the auspices of the National Foundation for Infantile Paralysis. The latter organization also secured needed equipment and subsidized the payment of personnel during the epidemic.

The American Red Cross, quickly meeting every quota set by the medical authorities, recruited over 200 nurses from several western states for service in the County General Hospital. In addition, there was special recruitment of physical therapy technicians, medical social service workers and "packers" by the County General Hospital and the National Foundation for Infantile Paralysis.

In order to assure continued medical supervision after hospital discharge, a follow-up system was established, utilizing the public health nurses of the health departments as well as the medical social services of the hospitals.

Organization of a Poliomyelitis (Preparedness) Coordinating Council *before an epidemic strikes* would no doubt minimize the problems which arise during an epidemic. Particularly in larger cities such a council appears justifiable in view of the relative complexity of community organization.

In planning to meet an epidemic of poliomyelitis, attention should be given to the following items: bed space (both acute and convalescent), equipment, personnel, publicity, discontinuing nose and throat surgery, and a follow-up system. In the case of recruited personnel provision should be made for transportation, physical examinations and medical care, housing, training and supervision on the job, and clear cut financial arrangements.

* From the California State Department of Public Health.

Coming Medical Meetings

American Association of Industrial Physicians and Surgeons, Buffalo, N. Y., Statler Hotel, April 26-May 4. Address: Dr. Frederick W. Slobe, 28 East Jackson Boulevard, Chicago 4, Secretary.

American College of Chest Physicians, Atlantic City, N. J., Ambassador Hotel, June 5-8. Address: Executive Secretary, American College of Chest Physicians, 500 North Dearborn Street, Chicago 10, Illinois.

American College of Physicians, Chicago, April 28-May 2. Address: Mr. E. R. Loveland, 4200 Pine Street, Philadelphia 4, Secretary.

American Congress of Obstetrics and Gynecology, St. Louis, September 8-12. Address: 24 West Ohio Street, Chicago 10, Illinois.

American Society for Clinical Investigation, Atlantic City, Chalfonte-Haddon Hall, May 5. Address: Dr. Eugene A. Stead, Jr., Grady Hospital, Atlanta 3, Georgia, Secretary.

American Society for Research in Psychosomatic Problems, Atlantic City, May 3-4. Address: Dr. Edwin G. Zabriskie, 714 Madison Ave., New York 21, Secretary.

American Society for the Study of Sterility, Atlantic City, N. J., June 7-8. Address: Dr. John O. Haman, 490 Post Street, San Francisco 2, California.

Association of American Physicians, Atlantic City, May 6-7. Address: Dr. Joseph T. Wearn, Lakeside Hospital, Cleveland 6, Secretary.

California Medical Association, Los Angeles, Hotel Biltmore, April 30-May 3. Address: Dr. L. Henry Garland, 450 Sutter Street, San Francisco 8, Secretary.

Letters to the Editor . . .

CANCER AND THE EMBRYONAL HYPOTHESIS

One of the oldest and yet most persistent theories of cancer genesis is the embryonal one. As early as 1829 Lobstein and Recamier compared the growth of tumors to that of embryonal tissue. In 1854 the embryologist Robert Remak first proposed the theory that cancer as well as certain benign tumors arose from groups of misplaced somatic cells comprising embryonic "rests" or residues. Some years later Julius Cohnheim adopted the theory, and largely through his influence it gained wide and lasting currency. Historically, then, the "Cohnheim theory" is more accurately described as the "Remak-Cohnheim theory."

The theory of embryonic rests came as a logical consequence of the universal acceptance of Kaspar Friedrich Wolff's thesis of epigenesis, which completely supplanted the preformationist theories of the ovulists and homunculists. The proponents of epigenesis reasoned that if embryogenesis does not involve the unfolding and expansion of a preformed organism, then the development of an organism from the egg must involve the gradual adding of part-to-part much in the same manner that a house is assembled from a mass of bricks. What is more natural, they reasoned, than that some of these "bricks" be misplaced in the process of building?

The mechanistic aspect of this literal interpretation of epigenesis became apparent when examined in the light of Hans Spemann's researches, published in 1900, on organizer action and embryonic induction. Spemann showed that the surface ectoderm of *any* part of the early embryo when placed over the optic vesicle underwent lens induction. Others have since been able to duplicate this induction phenomenon through the use of a number of various chemicals.

Experiments of the nature of Spemann's have since been multiplied an hundredfold. Data from thousands of other transplantations in experimental embryology may be summarized as follows: (1) when a piece of embryonic tissue that has not yet been determined or differentiated into a specific organ type is transplanted into another organ field, the transplant differentiates in conformity with the morphological pattern of the host organ; (2) when a piece of embryonic tissue is transplanted after determination, it differentiates at the transplanted site in conformity with the morphological pattern of the site from which it was derived. Since any hypothetical misplacement of embryonic cells would necessarily occur very early in development, such cells would differentiate according to the tissue in which they were misplaced; hence they could form no so-called embryonic rests.

Oberling has summarized the case against the embryonal hypothesis of carcinogenesis very well: "It is true that embryonal cells do somewhat resemble cancer cells in appearance, but the two are entirely different in nature. For whereas the proliferative vigor of the former gradually flags as they differentiate to form normal tissues, their malignant prototypes continue to multiply indefinitely and end at last in anarchy and ruin.

"But, it may be said, in the embryo growth is restricted by controlling and directing influence; in the body of the adult, where these are missing, the embryonal cells behave quite differently. Experiment does not confirm this objection. Embryonal tissues in all stages of development have been inoculated into countless adult animals, and always with the same outcome; they never changed their character, but continued to act as they do in the embryo, growing for a time but ending as mature tissue."

Although the cancer cell is not embryonic, neither is it a spontaneously created component of the life-cycle. As Virchow pointed out long ago, no morbid process can evoke from a cell or cells potentialities that are not inherent. The cancer cell has its normal counterpart in the animal life-cycle, and this counterpart is the *non-embryonic* trophoblast cell of the early conceptus. The trophoblast cells develop before the definitive embryo, form no part of the definitive embryo, and may persist after the embryo is gone. The trophoblast cells arise as a result of the initial cleavage of a gametogenous cell that in turn has arisen from the meiosis of a diploid totipotent cell. Although inadequacies in earlier terminology have obscured the fact, *the trophoblast cell is the very antithesis of the embryonic cell*, and will destroy definitive embryonic cells in a malignant fashion when cultured with them *in vitro*. The malignancy of the normal trophoblast cell, removed from the checking influence of the mother, is not exceeded by any known exhibition of cancer.

While the facts of modern embryology dispose of the embryonic theory of cancer by disposing of embryonic rests, modern embryology recognizes the migration of specific non-embryonic cells during embryonic development: these cells are the diploid totipotent cells that comprise the morphologically continuous line of germ-cells that extend from generation to generation. A great number of workers have proved the migration and ectopic dispersion of these cells in animals and in man. The diploid totipotent cells that enter the normal canalization of the gonads must undergo meiosis to produce functional gametes. The division of a gametogenous cell so produced can occur only by the initial production of trophoblast, which marks the earliest stage of the conceptus. If the production of trophoblast occurs through the meiosis of an ectopic totipotent cell, the resulting trophoblast is either destroyed or exhibited as cancer—the most malignant exhibition of which consists of the frank trophoblast cells of extra-genital chorionepithelioma. As we have frequently emphasized, a tropho-

blast cell has *never* been observed in the male except as the most malignant exhibition of cancer—nor so in the female outside of the canalization of pregnancy.

There is no known property of the cancer cell which is not possessed by the trophoblast cell. Trophoblast cells in every respect indistinguishable from those of normal pregnancy comprise the most malignant exhibition of cancer: chorionepithelioma. Primary chorionepitheliomas have been found extra-genitally in both sexes (thus again proving the ectopic presence of the parent totipotent cell), and some of the trophoblast cells comprising these tumors have been exhibited as adenocarcinoma or sarcoma in metastases. In examining over 900 cases of testicular tumors, Friedman and Moore found the majority of them to contain frank cellular and syncytial trophoblast. In some cases the trophoblast was overt only in metastases, in other cases only at the primary site, and in many cases in both sites.

Like many other ideas in science that have been favorably received over several generations, the thesis of the so-called embryonic nature of cancer and the idea of embryonal rests are thus not entirely without justification. The so-called lost cells are the totipotent migrating germ-cells and the so-called embryonal cells are the trophoblast cells. This parallelism, however, cannot mitigate the urgency for the strictest precision in our terminology on the subject of growth and development.

Although it is not possible to attempt here an outline of the evidence for the trophoblastic nature of cancer, this is the only thesis of carcinogenesis for which not a single tenable theoretical or experimental contradiction has ever been found. A wealth of positive data exists for the support of the trophoblast thesis.

It is true that somatic cells and tissues are sometimes found in anomalous positions, but this is the result of anomalous organizer action on highly competent or undifferentiated cells—and not the result of their mechanical transposition. Just as the osseous tissue that sometimes can be induced in skin by the prolonged application of methylchloranthine is due, not to mechanically displaced bone cells but to the anomalous organizer effect exerted by the chemical on highly competent cells, so the whole phenomenon of carcinogenesis — according to the trophoblast thesis—has as its basis organizer phenomena which involve exclusively the meiosis of a totipotent cell with the consequent evocation of the pleomorphic trophoblast cells that (however masked morphologically by the tissue field in which they find themselves) form the constant malignant component of all exhibitions of cancer.

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REHABILITATION OF TUBERCULOUS PATIENTS

I note a very liberal quotation in California Medicine, November, 1946, issue; Vol. 65, No. 5, page 58, quoting from the current issue of *Hygeia* on "Rehabilitation of Tuberculous Patients" by Joseph B. Rosner, M.D., of the National Jewish Hospital, Denver, Colorado.

I should like to take exception to point No. 5 in this program. As far as the patient is concerned, this is really the key point in all of those that are mentioned. I am quite sure that it is not current opinion among experienced phthisiologists that "it is not wise for a patient to return to the occupation in which he was engaged before becoming ill." I believe, in general, that the advice given is exactly the reverse of this, unless the occupation is definitely unsuitable—which holds true for persons doing heavy manual labor or those exposed to a silica hazard. I know the general composition of the patients in the National Jewish Hospital in Denver, and I am sure this is not good advice for them.

This point, I feel, is very important. Many patients, as well as a number of doctors, will undoubtedly read this article, and may be influenced by it. *Hygeia* is generally a very reliable publication. I believe that some step should be taken to confirm my opinion, and a definite effort made to counteract the unfavorable advice which will be given, I am afraid, to many patients on the basis of this statement.

Sincerely yours.

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BOOK REVIEWS

AN INTEGRATED PRACTICE OF MEDICINE—A Complete General Practice of Medicine from Differential Diagnosis by Presenting Symptoms to Specific Management of the Patient. By Harold Thomas Hyman, M.D., Volumes I, II, III, and IV, and Index. 1184 illustrations, 305 in color. 319 Differential Diagnostic Tables. Philadelphia and London. W. B. Saunders Company, 1947. Price $50.00 per set.

At the end of a preface eight and a half pages in length Dr. Hyman writes the following 97 word sentence: "If 'An Integrated Practice of Medicine' fulfills the requirements for which it has been devised, it should be possible for the practitioner, after taking the history and performing the physical examination, to turn to the Index of Differential Diagnosis, obtain a reference to the needed Tables of Differential Diagnosis, establish a definitive diagnosis or be guided to additional examinations and tests by which the diagnosis can be established; and then prepare a therapeutic routine to include symptomatic, specific and prophylactic therapy for the relief or cure of the abnormal manifestation concerning which his patient has consulted him." Surely no writer has ever set himself a more pretentious task in a more pretentious fashion. If one is to believe the author or the advertising matter of the W. B. Saunders publishing company or even the medical editor of *Time* magazine, the author has fully succeeded in this task.

Despite the weight of such authority we refuse to be stampeded into so complete an endorsement. The author has gone mining for gold. He has struck pay dirt, but the ore varies widely in quality. There are many excellent things about the book: A tremendous mass of information is presented in a generally up-to-date manner. The indexing, found separately at the end of each volume and in a separate volume for the entire work, is altogether admirable. The cross-indexing throughout the four volumes ties them together more inextricably than any other lengthy work with which the reviewer is acquainted. The photographic illustrations are numerous and generally good.

"Integrated Practice" is a medical almanac, chuck-full of all kinds of medical information. Although quite a number of co-authors cooperated in the writing of different sections, one has to look too diligently to find the acknowledgment of their work (at the beginning of the section or of the book). It is unlike the average almanac in that the dominating personality of the senior author keeps interrupting the facts with his opinions and keeps substituting his philosophy for techniques. He has certain concepts not universally accepted by the general body of medical authority and utilizes a textbook to spread his doctrines.

Except for the illustrations there are very few acknowledgments of source material or of original work, no matter how recent. It is felt that a short number of references to recent work would be desirable at the end of each chapter.

The tables of differential diagnosis are numerous and cover a vast field. They are not constant in their relation to the principal subject involved. For example, the table on Tympanites comes on page 1378 after the discussion on intestinal obstruction. But on page 1380 the table on Pain in the Right Lower Quadrant is presented before the discussion of acute appendicitis. The tables are not as uniformly inclusive as one might wish. The table on Pain in the Right Upper Quadrant does not list inflammations of the diaphragm, perihepatitis, Laennec's cirrhosis, or the fatty liver of alcoholism, which are surely more likely to be encountered by the general practitioner than hypertrophic cirrhosis of Hanot, the existence of which is questionable.

The senior author states that he himself has deliberately written the section on the Nervous System including Psychiatry in the belief that his exposition will meet the need of the practitioner better than that of an author with more formal training. The reviewer is compelled to the view that more knowledge is a larger argument than less training. The presentation on intracranial injuries (pages 1450 to 1455) is poor. The course and treatment of cerebral concussion are not clearly presented. The syndrome is discussed as a phenomenon of the prize ring. Automobile accidents, which are more common, are not mentioned. A dilemma is posed for the reader on page 1295. The author generalizes that "the treatment of coma cannot be carried out with intelligence until the causative factor is elucidated." But shortly afterward he specifies "if spinal fluid is turbid, temperature is elevated or leukocytosis is pronounced, inaugurate . . . penicillin." It is bad that the pupil should use antibiotics without specific reason: it is worse that the teachers should advise this practice.

Certain other errors may be pointed out: On page 959 the statement is made "patent ductus, alone of the congenital cardiac lesions, is accessible to surgery." The published work of Taussig and Blalock on the surgery of cyanotic heart disease antedates this book by many months. The section on coccal infections (page 154) similarly omits mention of Romansky's development of penicillin in beeswax and oil and dogmatizes that if the patient is ambulatory, sulfonamides must be employed. In the discussion of acute appendicitis, anorexia is not mentioned as one of the cardinal symptoms and the statement is made dogmatically (page 1382) that "diarrhea does not occur unless the patient is . . . given a purge." Most surgeons will dispute this.

The Wintrobe method is not mentioned in measuring the sedimentation time of erythrocytes, but is listed immediately afterwards to measure the hematocrit. It is stated wrongly that the tube used requires 3 cc. of blood (instead of 1 cc.).

Most of the tests of liver function are discussed in a general way only. Yet certain tests, used relatively rarely, such as the galactose tolerance, are presented in detail. The technique for the bromo-

sulphthalein excretion test recommends the injection of 2 mg. of the dye per kilo of body weight instead of the more generally accepted 5 mg. per kilo.

The training and the acumen of the radiologist are slurred. Diagnostic roentgenology is completed in the space of three pages. One receives the impression that the only films which need to be referred to the specialist are those of the nasal accessory sinuses, and that "any physician who has learned to operate a motor car and a radio set can learn clinical radiography with slightly greater effort."

At times the text is scholarly, at times very sketchy and even inaccurate. The reviewer doubts that this unevenness of presentation is deliberate. He suspects it may be due to the fact that the senior author is more conversant with some branches of medicine than with some others. He suggests that a second edition of the book might be made a more accurate *Vade Mecum* for the practitioner if various specialists, themselves with a broad general outlook, were given freer rein under the general editorship of the senior author. The general practice of medicine today covers so many subjects with so many details that no one man can master them all—and this fact may be acknowledged freely without loss of stature.

MENSTRUAL DISORDERS AND STERILITY. By Charles Mazer and S. Leon Israel. Second Edition. Completely revised. With 133 Illustrations. Paul B. Hoeber, Inc., Medical Book Department of Harper & Brothers, New York, London. Price $7.50.

Mazer and Israel have written the second addition of "Menstrual Disorders and Sterility." It was written for students and practitioners, but it will be far more valuable to Endocrinologists and those specialists in Obstetrics and Gynecology who have a particular interest in the fields so adequately covered.

The first chapter describes in detail the various gonadotropins. In the second chapter the many uses of the estrogen, both natural and synthetic, are carefully discussed. Progestin and its effects are also carefully described. One is immediately impressed with the wide variation of dosages, effects and results, and it can not be said that this particular chapter will clarify in the minds of the average practitioner just what should be used, and when and how.

Dysmenorrhea, so often neglected in the average textbook, seems to be given a most complete discussion. Many of the therapeutic measures have been given in detail and the postural treatment as devised by Billig and Dick is given due and just consideration. Possibly some readers will feel that too much emphasis has been placed on the use of the endocrines.

The discussion of sterility is well presented, but again the use of the gonadotropins, estrogens and progestin may be too enthusiastically recommended. Special attention is given to the cervical factor in the barren patient, and this seems to comprise the most important portion of the authors' remarks on infertility.

Habitual abortion, as described under relative sterility, seems to show that the authors have brought the text of a rapidly increasing knowledge up to date, and the Rh factor, toxemia of pregnancy and the management of threatened abortion are most satisfactorily discussed.

The book has much to offer to the specialist, but it is probably a little too exhaustive and detailed for ready consumption by the practitioner.

A TEXTBOOK OF CLINICAL NEUROLOGY. By J. M. Nielsen, B.S., M.D., F.A.C.P., Associate Clinical Professor of Medicine (Neurology), University of Southern California; Senior Attending Physician (Neurology), Los Angeles County General Hospital; Attending Neurologist, Hospital of the Good Samaritan, Los Angeles, California. Second edition, revised. With 190 illustrations. Paul B. Hoeber, Inc., Medical Book Department of Harper & Brothers, New York City. Price $7.50.

In an excellent text and reference book on Clinical Neurology, Dr. Nielsen's clear, concise style has allowed him to incorporate in a single volume an amazing mass of neurological data. Unlike the usual text book, this volume combines the essential neuro-anatomy and the symptomatology with the author's extensive clinical experience.

The second edition includes some revised chapters and some additional information of a newer character. This brings the text up-to-date, but this is of minor importance as compared to the manner of presentation of the fundamental syndromes essential to neurological diagnoses.

The chapters dealing with vascular and inflammatory lesions of the brain are excellent. However, the outstanding feature is the discussion of cerebral localization. Short, concise discussion is given of electroencephalography which is well worth reading in view of the extensive use which is being made of this diagnostic method at the present time.

Although classified as a text book of clinical neurology, it is likely that this volume will prove far more valuable as a ready source of reference. A complete source of neurological conditions for those interested not only in internal medicine but in neurology and neurosurgery as well.

HARVEY CUSHING, A Biography. By John F. Fulton. Copyright 1946. First edition, 150 illustrations. Charles C. Thomas, Publisher, Springfield, Illinois. Price $5.00.

The story of Cushing's life is divided readily into four fairly distinct phases. The first is that of his formal schooling. It includes his graduation from Yale and the years in Harvard Medical School and Hospital up to the time of his departure for Johns Hopkins at the age of 27. Next comes the period of his surgical training and his preceptorship under Professor Halsted. These were the formative years in his surgical development and led to his appointment to the faculty. Then follows his assumption of the Moseley Professorship of Surgery at Harvard Medical School in 1912, and the post of Surgeon-in-Chief at the Peter Bent Brigham Hospital in Boston, where he continued until his retirement in 1932 at the age of 63. The final years were spent at New Haven. These permitted devotion to his

bibliographic interests, and resulted in establishment of the medical library.

For the preparation of this biography abundant material was available to the author. Doctor Cushing, with characteristic foresight, anticipated and made provision for it. His own files of letters, notes, diaries, sketches and photographs were carefully kept, and these were supplemented by family, friends and associates. Correspondence, much of it from Cushing's own letters, is liberally transcribed. The choice of appropriate selections must have taxed the good judgment of the biographer.

His lineage is dealt with comprehensively. Letters to his parents and immediate relatives are numerous. His prolific letter writing, which seemed unusual in boyhood, persisted through life. His facility with the pen was not confined to writing, for his artistic ability was evident early and was marked in his college days. During this period his great energy, good coordination, and athletic ability were combined with a keen competitive spirit.

During his years of training at Baltimore and his long preceptorship he received the Halsted imprint and was well grounded in those surgical methods characteristic of the Halsted school. To these he adhered throughout life. All phases of his work, the preoperative studies and careful recording, the operative technique, from the meticulous preparation of the field of operation down to the final dressing, were those of "the Professor." In addition, the detailed and exhaustive character of Halsted's scientific contributions could not fail to afford to his pupil the best example of surgical writing. The biographer has dealt lightly with the place of Professor Halsted in the Department of Surgery of Johns Hopkins and in the field of surgery in the United States. It would seem that those acquainted with the Baltimore period of Cushing's life and work would be more apt to view Cushing as an able and receptive pupil in surgery who was given exceptional guidance and opportunities. His surgical methods were all in the Halsted pattern. The association with Osler and Welch and their interest were inspirations for the young surgeon. Fulton has viewed their relationship with him more as that of full contemporaries, as developed in later life.

In the twenty-year period in Boston, which began at the age of 43, Cushing is portrayed at the full development of his abilities and productivity. His numerous publications, his contributions, both scientific and literary, and his extraordinary and well-deserved honors are given in detail. His views on medical education and "full time" would be of interest to all teachers. Sufficient detail is given to be of greatest interest to surgeons and neurologists, but a nice balance is maintained and the interest of lay readers is held.

This book portrays a surgeon who has done more than any other to lead followers into this field. The surgery of neoplasms came to dominate his interest, rather than the broad field of neurological surgery, and most of his pupils have followed this lead. Thoroughness and meticulous attention to detail characterized his technical work, along with a tendency toward over-elaboration rather than simplification. His literary abilities were not surpassed by any contemporary medical writer. They were partly the result of his native ability and early taste. It is an encouragement to those less gifted to realize the painstaking and frequent recasting and rephrasing which contributed to the style of his finished product. His own interests, his energy and enthusiasms were maintained throughout his life and were all directed toward the attainment of his goal.

By way of introduction Doctor Fulton quotes from Ferris Greenslet (*Walter Pater*, 1903) a reference to the task of the biographer: "He will undertake to deal fairly with his reader, to be diligent in gathering knowledge of his subject, to order it carefully, to ponder it strictly and sympathetically; but he will not undertake to portray the elusive personality in all its fulness." The biographer has taken this to heart. It is difficult to see how the many facets of Doctor Cushing's make-up could have been portrayed with justice or accuracy by any author. All of them were not presented to any one person. Likewise, they were not all visible in any one phase of his career. The reviewer has been impressed with the sustained interest the book has held. Doctor Fulton deserves praise for a task well done, and the subject of the biography would, I am sure, be gratified with the result.

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GYNECOLOGICAL AND OBSTETRICAL PATHOLOGY. By Emil Novak, A.B., M.D., D.Sc. (Hon. Dublin), F.A.C.S. Second edition, with 542 illustrations, 15 in color. W. B. Saunders Company, Philadelphia, 1947. Price $7.50.

Anyone who treats gynecologic disturbances and performs gynecological operations should be fully conversant with the underlying pathology of the disease. As medical studies go, formal training in gynecologic pathology is skimpy. The average doctor promptly forgets the little that he was taught during his student days. Evidently Emil Novak realized this when he wrote the original edition of his book, because it brought knowledge in simple language to those wishing to enhance their store of pathological information. The book was then well received by specialists and general practitioners alike. The second edition, just off the press, has been enriched by a large number of illustrations, some of them in color, and by an occasional change in the text. Novak's first edition was so complete in its scope that little could be added to the subject matter without endangering the scope of the book. As the new edition stands, it preserves its highly practical and simple character. It is thoroughly scientific in its approach, but handles the subject matter so skillfully that it is an easy book to read. It is well indexed and although it does not pretend to be an encyclopedia, it is an excellent reference book. Subjects such as endometrial disturbances, carcinoma of the uterus and ovary, have been brought up to date. The discussion of the dysontogenetic tumors of the ovary is classically concise and complete. It should be read by every doctor or student. Hellman, who contributed the chapter on placental abnormalities, likewise has revised and enlarged his contribution. The Saunders

Company have done an excellent job of printing and binding and of reproducing good illustrations well.

You may not have the time nor the inclination to pick up your gynecological pathology where you left off during your student days. Nor may you find the time to slave away at the microscope to learn the intricacies of pathological diagnosis, but you can find time to read Novak's enlightening book. It will give you an insight into the subject which will make it easy for you to evaluate your pathologist's reports, not to speak of the better understanding it will give you of the disturbances you treat or operate upon. All in all, Novak's book, if read intelligently, is like taking a postgraduate course in gynecologic pathology in a comfortable chair by your fireside.

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INTRODUCTION TO SURGERY. By Virginia Kneeland Frantz, M.D., Assistant Professor of Surgery, College of Physicians and Surgeons, Columbia University; Associate Attending Surgical Pathologist, Presbyterian Hospital, New York, and Harold Dortic Harvey, M.D., Assistant Professor of Clinical Surgery, College of Physicians and Surgeons, Columbia University; Assisting Attending Surgeon, Presbyterian Hospital, New York. Copyright 1946. Oxford University Press, New York. Price $2.50.

This new book presents the most refreshing approach to the understanding of the principles of surgery that the reviewer has seen. It has been written primarily to aid the medical student as he is introduced to the surgical branch of medicine. But its context will be of great benefit to teachers of surgery, to doctors who practice surgery and to all physicians who should have at least an acquaintance in surgery.

Simple, clear language and steadfast adherence to fact stimulate the reader's interest. Honesty and open-mindedness in evaluation of surgical treatment and theory encourage him to share the author's zeal to seek understanding. The purpose of the treatise, and the manner in which it is constructed can be realized from these quotations, taken from the introductory paragraphs. "We offer the student beginning the study of modern surgery certain fundamental observations on the response of the tissues of the body to various types of injury, and the repair that follows . . ." "Surgery is defined as that branch of medicine which attempts: 1. To assist the body to repair injuries. 2. To improve anatomical deformities and physiological derangements. 3. To assist the body in overcoming certain infections. 4. To remove or destroy certain neoplasms."

Elsewhere in the introduction, there is explanation for many of the problems that baffle the beginning student in surgery, such as the reason why surgical terminology sometimes is at variance with that of other branches of medicine. The authors stress the importance of observation and of clinical experience as the basis for each individual's concept of surgical disease and treatment. They offer the reminder that the surgeon also must be concerned with other branches of medicine, for surgical disease oftentimes exists concomittantly with "non-surgical" disease. After the general introductory remarks, the evolution and the present day knowledge of surgery is then unfolded in systematic sequence.

In a concise seven pages, the history of surgery is reviewed from 1550 B.C. through the Golden Age of Greece, the Dark Ages and the Renaissance to the three great surgeons of all time: Paré, John Hunter and Lister. The reader notices that surgery began with the study of infections and injuries which occurred in areas of the body that could be observed objectively. He may reflect that the knowledge of these same phenomena is just as fundamental in present day surgery. He may find it interesting that the repression of surgery by the Church in the Dark Ages became the origin for the practice of minor surgery by barbers.

After the historical review, the book is divided into eight sections which are arranged to fulfill the definition of surgery as indicated in paragraph two of this review. The authors are careful first to establish the truth or what is known of the truth, and, second, to present familiar examples of the process or disease under discussion with brief generalizations as to treatment. Among the latter are included chemotherapeutic and antibiotic agents whose proven actions are stated with particular honesty. The doubtful and "hoped-for" actions of these drugs are omitted.

The basic principles of surgery include the pathology of injury and inflammation and the physiology of repair of all types of tissues from these processes. The mechanism of infections of all kinds is reviewed, and the problem of surgical drainage is clarified. Separate sections are devoted to foreign bodies, wounds, ulcers, burns and gangrene. The final section is concerned with hemorrhage and shock, with the clinical aspects of a carefully taken history and of a properly performed physical examination, and with a word of stimulation to the reader for experimental surgery.

Efficiency of expression and not brevity is the premium for the entire monograph. The reader will feel great respect for the considerable labor by the authors which produced this introduction to surgery so completely, so clearly, so well-organized.

N.B. Typographical error, last line of last paragraph of page 107. *apportunity* instead of opportunity.

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CUSHNY'S PHARMACOLOGY AND THERAPEUTICS. Thirteenth Edition, thoroughly revised by Arthur Grollman, A.B., Ph.D., M.D., F.A.C.P., and Donald Slaughter, B.S., M.D. Illustrated with 74 engravings. Lea & Febiger, Philadelphia. 1947. Price $8.50.

This revision of a standard reference book in Pharmacology and Therapeutics is the most recent and best work of its kind which has appeared since the war. It will be an invaluable aid to the practicing physician and student alike, who desire to learn of recent advances in such agents as: curare and its modifications, histamine and anti-histamine compounds, folic acid, the antimalarials—chloroquine and paludrine, dimercaprol (B.A.L.) as an antidote against arsenic, radio-active phosphorus, the barbiturates including pentothal, the local anesthetics including metycaine, the sulfonamides in-

cluding sulfomylon and promin, the antibodies including streptomycin and tyrothricin, and many other new drugs developed during the war period.

The outstanding section is on the hormones, it might be read by all interested in the use of endocrine preparations. Except for the small space devoted to mode of action, this section is unique among currently available textbooks. The section on the anterior pituitary is complete and up-to-date and avoids the complex factors involved in the various gonadotrophins. The section on the posterior pituitary is also timely. The section on the thyroid gland is complete except for reference to the role that the thyroid plays in promoting absorption. Thiouracil is briefly discussed with the intimation that it has definite drawbacks in chronic use. The section on the adrenal cortex reflects the interest of the senior author.

Unfortunately the section on toxicology does not include reference to the considerable number of economic poisons that are becoming problems in clinical practice.

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THE DIAGNOSIS AND TREATMENT OF BRONCHIAL ASTHMA. By Leslie N. Gay, M.D., Ph.B., Assistant Professor of Medicine of the Johns Hopkins University School of Medicine, Director of the Allergy Clinic of the Johns Hopkins Hospital. With a forward by Warfield T. Longcope, A.B., M.D., Professor of Medicine of the Johns Hopkins University School of Medicine, Physician-in-Chief of the Johns Hopkins Hospital. Copyright 1946, The Williams & Wilkins Company, Baltimore. Price $5.00.

This book is an excellent presentation of the subject of bronchial asthma, its diagnosis and treatment. It actually is a monograph on the subject because it does not deal with the other allergic syndrome. It is recommended to the general practitioner and specialist but it is too limited in its scope for the medical student. The arrangement of the text is excellent and is written with great clarity and in a readable manner. Dr. Gay uses case histories to demonstrate the many and sundry problems in treating bronchial asthma.

The chapter on physiology of normal respiration and the asthmatic state, written in simple and understandable language, covers the subject very thoroughly. The section on pathology is a review of the literature on the subject plus the author's own observations which covers the subject quite thoroughly.

Twenty of the 35 pages devoted to etiology are given to a discussion of pollens and their relation to bronchial asthma (which includes charts of pollen and spore counts). Very little consideration is given to the problem in regions other than the Atlantic Coast. Much of the space could have been devoted to other pollen problems of other areas. The illustrations are excellent and of practical value.

Much space is devoted to a discussion of therapy in treatment of bronchial asthma; a great deal of which is useless, having been discarded and of questionable value. It would have been better if the author had given this space to his own experience and routine procedures in the treatment of bronchial asthma.

Very little mention is made of the new antihistamine drugs and practically no discussion as to their value.

The allergy specialist will find much in this volume with which he will disagree, but there is a great deal of useful information. In conclusion one can say that here is another book on the subject.

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PRINCIPLES OF HEMATOLOGY. By Russell L. Haden, M.A., M.D. Third Edition, thoroughly revised, published 1946. Octavo, 366 pages, with 171 illustrations including 173 original photomicrographs and 95 original charts and drawings. Cloth, $5.00. Lea & Febiger, Washington Square, Philadelphia 6, Pa.

This is the third edition of a book on hematology written by a physician whose name has long been associated with diseases arising from disturbed hematopoesis. Since Dr. Haden has contributed much to the techniques of hemoglobin estimation and the various blood indices, it would be anticipated that the section on techniques in this book would be outstanding. Such is the case, and the methods are so clearly described that it makes this book of value to students and physicians alike. The book is of practical value to the physician in that it is illustrated by 106 pertinent clinical abstracts illustrating various types of hematopoetic disorders. In addition, the newer knowledge concerning the etiology of various types of anemia is made readily understandable by simple graphic illustrations. As a background for a clinical interpretation of various blood disorders, Dr. Haden has emphasized the technique of aspiration of marrow and interpretation of film preparations.

It was with regret that this reviewer did not find some mention of the RH Factor since the author had done so much on the hemolytic anemias. The book in general will be found of value to student and physician alike.

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THE NATIONAL FORMULARY, Eighth Edition. Prepared by the Commission on National Formulary under the Supervision of the Council by authority of the American Pharmaceutical Association. Official from April 1, 1947. Published by the American Pharmaceutical Association, Washington 7, D. C. 1946. Price $7.50.

In text arrangement, this eighth edition of the National Formulary, which on April 1, 1947, is officially to supersede the seventh edition, makes a notable departure from that used heretofore. Although monographs still are arranged in alphabetical sequence, in the new edition a monograph on a basic drug is followed by monographs on its official preparation. A marginal index is used to make the new arrangement easier to use. Another feature is that greater emphasis is put on the use of the metric system, although equivalents in the apothecaries system also are given.

Purpose of the new, as of preceding editions, is the establishment and promulgation of official standards for drugs.

California MEDICINE

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MEDICINE'S CHALLENGE*

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DURING each annual session of the California Medical Association it is the duty of its President to make an address. In compliance with that duty, I shall endeavor to inform you concerning the accomplishments of the Association during this year past together with our failures and shortcomings. Also, to outline for you my own and our officers' suggestions concerning our future program.

The past year has been a transition year from war-time tension and work to peace-time activities. Many of our colleagues have returned from military duty and have reestablished themselves in private practice. The teaching universities and the California Medical Association have cooperated generously and effectively in providing post-graduate and refresher courses for our returned veteran physicians.

California, with a population of nine and one-half million persons, has confronting it many problems concerning the private practice of medicine and the public health of its citizens. If population analysts are correct, by 1960 the state will have a population of fifteen million. This rapid increase will mean that our state will develop into an industrialized society instead of an agricultural one. These changes will increase our problem with reference to the control of disease from the standpoint of private practice and public health.

During the past year, the medical profession in this state has again been faced with a distinct legislative threat of socialized or political medicine. This move on the part of the social planners, job creators and politicians is directly contrary to our concept of American democracy and the thoughts behind the founders of our country in the promulgation of the Constitution of the United States of America. The thought has, unfortunately, been by propaganda instilled into the minds of our citizens that a generous government must care for all of us from the cradle to the grave. The regimentation of the profession of medicine and its allied professions which would result from the socialization of the state or federal government from a medical standpoint would be contrary to all ideas of American freedom of action and enterprise. It would lead inevitably to totalitarianism and communism. The reasons for such a statement are many; one or two will suffice.

First: The acceptance of political medicine by our legislators and the public is a first step in our loss of individual rights — a step toward definite control of the daily lives and work of our citizens which must lead to federal and state control of all other professions and businesses. It seems fantastic that a people such as ours should ever seriously consider such proposals. However, many organizations and groups, by superb salesmanship, stressing security and distribution of services, are fostering such a system of medicine. When a government by law decides what physician a citizen may have, how much that physician may charge him and what kind of treatment he may have, that government will soon decide what all other trades and professions may do, in a similar manner. This would lead us into a nation of people looking to our state or federal government for guidance and sustenance in all phases of life itself.

Second: The statement that socialized medicine will provide better care than at present is based on false premises. In fact, from actual statistics and information from all the areas where state or federal medicine has been in force, it is definitely proven that good medical care such as we have is not possible under such conditions. State control and compulsion will absolutely lower the quality of medical care. Such control would not be economical. In this state to render good medical care to all the people would cost at least $600,000,000 to

* Address of the President, California Medical Association, delivered before the Seventy-sixth Annual Session, April 30, 1947, Los Angeles.

$700,000,000 yearly under the guise of a bill purporting to provide relief from the cost of catastrophic illnesses for the individual. The public is promised things that cannot be provided due to lack of hospital and other facilities. The medical profession has been accused of trying to frighten the people of California when it has said that proposed legislation in our state is economically unsound, medically dangerous and cruelly misleading in promising to do things that cannot be done.

These bills have been proposed in California due to the supposed medical neglect that exists and because the proponents claim that thousands of persons in this state suffer medically because a physician cannot be obtained or afforded. I have not been able to authenticate cases of neglect in California. In fact, very recently in one of our populous counties, the County Medical Association ran a half page newspaper advertisement for four days, requesting that any one in that area who could not obtain medical services because of inability to pay or lack of facility, call the Society. Only three legitimate calls were received and direct evidence here proved that there was no such medical neglect or need. There may be, but I doubt it, a few places in our state where medical care is unavailable. A very small percentage of people live more than 20 to 30 miles from a hospital. The physicians of this state have never denied care to the indigent or low income group. The physicians of this state are rendering millions of dollars of charity care to the indigent of California. This has been long one of their contributions to the aid of the needy for which they have not had full recognition.

I would add, however, that there are some things that the medical profession of this state can do and is doing to help improve the health of our people. We do need increased public health facilities in many areas where even rudimentary health services are not now available. We need to solve and are helping solve more efficiently the problems of tuberculosis, cancer and heart disease, the chronic conditions which cause more morbidity and mortality than all other illnesses. We have responsibility as citizens as well as physicians. We have expressed ourselves in no uncertain terms against legislative proposals designed to saddle the people of California with compulsory health insurance. We will be guilty of doing less than our duty if we do not give full support to putting into effect constructive services which we know to be useful in preventing and controlling disease among the citizens of California.

As the California Medical Association and as physicians living in California communities, we are, therefore, concerned with community conditions that determine the standard of living of a family—its housing, food and environmental conditions which govern, among other things, the purity of water supply, disposal of sewage and garbage, and the inspection of food supplies. We must be sure that every community in California has the six basic public health services which both urban and rural areas need to give us effective public health control.

The control of environment protects the health of people as we have already mentioned. There are other conditions relating to public health and well-being with which we are concerned. We must protect the health of our children and our mothers through immunization against communicable diseases, through pre-natal clinics and through child health conferences. Nor can we ignore the need for control of other communicable disease, including tuberculosis and venereal diseases. We need public health laboratory facilities and services to assist the health department, the practicing physician, hospitals and other persons and agencies contributing to public health. The collective analysis and interpretation of statistics derived from the registration of births, deaths and the incidence of disease is absolutely necessary to the health of the people of our state. Early recognition and treatment of disease is basic to good health, and an educational program aimed at widespread understanding of the principles and practices of personal hygiene and community health protection is included among these basic minimum services. Current legislative measures insuring these public health services should be given our support as citizens.

NEED FOR HOSPITALS

World War II gave us immense gains in insight into the relation between fear, anxiety and health. We must, both as practicing physicians and as community leaders, relate this knowledge to planning for California's future. "Mental hygiene" is no idle phrase.

Increased emphasis must be given to securing for each community adequate hospital facilities and full utilization of these facilities. Construction of hospitals is a vital need in California. *Preliminary, conservative*, estimates indicate that we need 17,000 additional beds. Federal legislation has set up a program for providing hospital facilities on a national basis, which our state and national Medical Association have joined with other health agencies in supporting. Our present legislature has before it measures which will permit a long-range hospital building program for California. We cannot consider that we have accepted our full responsibility for the task we have set ourselves as medical advisers to the voters of our state unless we give support to this essential legislation.

The need for adequate hospital facilities is the core of our disease control program. We cannot reduce our tuberculosis death rate without increased provision of beds. The California Medical Association has given immeasurable service to the cancer control program in this state, in sponsoring it and in working closely with the State Department of Public Health. Hospital beds for the care of the chronically ill is an inevitable part of this program.

We cannot move forward in our crusade to prevent heart damage and death to California's children from rheumatic fever and rheumatic heart disease until we can be assured of a sufficient number of beds in which to give these children the long-term convalescent care which can protect their hearts.

The cost to communities is not reduced by ignoring these needs—it is increased—and furthermore,

we pay our money for poor health and hopeless chronic situations rather than making our dollars serve the future. Short-sighted policies and failure to maintain preventive services—in short, failure to put into effect our knowledge of disease control —are far more costly than the maintenance of good services. Both physicians and their patients have benefited wherever good public health services have been maintained.

The need for additional hospital facilities in California is severe. There is an acute shortage of 1,500 to 2,000 beds and an overall need for approximately 17,000 additional beds. To build the necessary hospitals would cost $200,000,000 at least. Cooperation of all agencies—the medical profession, state and federal governments and private citizens—will be desperately needed to meet this demand. The profession is striving sincerely to solve this problem.

In the past the California Medical Association has done its best by every method possible to educate Californians to the value of voluntary medicine in contrast to political or compulsory. It has found the public receptive to the plan of voluntary prepaid medical services; the response has been convincing. The membership in California Physicians' Service, our own plan, has increased from about 160,000 beneficiaries to approximately 500,000 in one year. This does not include the persons who have bought health policies of various types from private insurance agencies. Blue Cross Hospital plans now cover 600,000 in this state.

The medical profession admits that this does not solve all our medical problems of distributions and service—nor does it claim that all other economic problems in our state have been solved, such as proper housing, proper food, clothing, shelter, and recreation for all our citizens. One thing has been proven, however, and that is that people are more and more willing to take some initiative themselves in providing readily available catastrophe care for themselves on a free, voluntary basis.

This fact proves also that the people of the state are not yet ready to put the burden of the greater part of their medical bills on the employer and the state. California Medicine has been and is meeting the challenge of political medicine head on. It is not unmindful of the shortcomings of our present system in medicine as in many other fields. The physicians of California are going forward in research and planning, in investigation and in work looking to the future improvement of health of our citizens; and this is being done without government subsidy or compulsion.

At this time I would like to pay tribute to our legislative committee and its alertness in providing us with proper information concerning the 400 bills relating to public health which have been scheduled to come before the current legislature in Sacramento. No words of mine can be used that would express adequately my commendation. By the teamwork of our whole membership, I know that only progressive measures will be adopted, which will go a long way in helping solve our present medical problems.

The medical profession of California is not unmindful of its responsibilities. It feels, however, that the medical care problems of this state can only be solved on a voluntary, cooperative basis. The physicians of this state know that any job of this type that the state tries to do, private enterprise can do better.

Medical men in California have accepted and are facing the challenge of providing, under American principles of non-compulsion, better medical care than that offered by any state in the United States. They do not want second-rate things. The citizens of this state do not want inferior care and regimentation when it affects their lives and health.

REVIEW OF ACCOMPLISHMENTS

So, in summarizing I may point to the following definite accomplishments during the past year:

1. The public demand for compulsory health insurance has sharply decreased in California. The Governor's 1947 program is not and has not been receiving such a measure of support as was given two years ago—and the legislature is not in the mood to support such legislation.

2. The California Medical Association's attack on the evils of compulsory health insurance has proven effective in that the proponents of the program have been making strong efforts to disclaim the word "compulsory" and are avoiding the terms "socialization and regimentation of medicine." The bills of 1947 are defensively and deceptively written and presented.

3. A great majority of organized public opinion is now on record against compulsory health insurance. More than 200 civic organizations, including most of the larger and outstanding civic groups in the state, have already adopted resolutions condemning such legislation.

4. Press opposition to the socialized medicine program has greatly increased. There are now more than 400 newspapers in the state which have announced their opposition to such legislation. In favor of compulsory health insurance there are at present only about 20 newspapers, indicating the weakness of such support.

5. The phenomenal growth of voluntary health systems during the past year has done much to remove the cause of agitation for compulsory health insurance. More than 1,000,000 additional persons were insured in 1946 by the more than 100 various voluntary plans active in California, and the total now covered is well over 4,000,000. C.P.S. membership increased from 179,000 to 419,000 and the number covered by the Blue Cross plans increased from 350,000 to 610,000.

6. During the year 1946 the California Medical Association has sponsored a 12-month campaign to make California "health insurance conscious" and this has been a prime factor in the growth of the voluntary systems. "Voluntary Health Insurance Weeks" have been held in 34 counties and five additional counties will be covered by July 1.

7. Public interest in a prepaid budgeted medical care plan has been stimulated by radio and newspaper advertising informing the public that a remedy for the medical care problem is available without resort to any form of socialized medicine.

This has been an effective answer to the criticism that physicians are doing nothing about the problem. Newspaper advertising has appeared in 450 newspapers in 34 counties. A California Medical Association sponsored radio program. "California Caravan," broadcast weekly over Mutual Network discussing the merits of voluntary prepaid health insurance, has had a listening audience of half a million people.

California Medical Association's aggressive, militant program has been a vital factor in a successful attack against political medicine. However, we must give credit to other factors which have aided us, among them the swing of the pendulum against regimentation and public controls as reflected in our recent congressional election trends and favorable economic trends. These trends may not continue indefinitely and if economic lags and depressions come along, we may expect sharp recurrences of demands for political medical cure-alls.

Public education must be continued on a long term basis, and if our objective of providing proper medical care on a voluntary basis in this country is gained I believe that we should recommend:

1. Capitalizing on our tremendous gains made in voluntary health insurance coverage with a goal of at least one million additional members during 1947, or in two years a goal of four to six million, which would approximate the number covered under the proposed compulsory systems.

2. Broadening of newspaper and radio advertising campaigns to inform every California citizen of the availability and merits of voluntary plans.

3. Continuation of the "Voluntary Health Insurance Weeks" so as to clinch the sales in all local communities.

4. Extension of aid to all County Medical Societies in establishing a sound public relations program, striving to inform the citizens of the state about the part that local physicians play in meeting community problems and what they are doing to take the economic shock out of illnesses.

The physicians of California, to do these things, must be vigilant and prepared. They must assume their responsibilities as citizens and physicians looking toward community betterment and improved health under a system which has made this the healthiest and greatest nation in the world.

The Increasing Importance of Q Fever Infection*

GARNETT CHENEY,† M.D., *San Francisco*

QUEENSLAND fever, or Q fever, as it has come to be known, has been considered a rare and relatively remote rickettsial infection, obscure as to the mode of contagion and bizarre in its clinical manifestations. The total number of cases which have been studied is less than 200, nearly all in Australia, and they may be classified in four general categories. The first of these is the series of cases in Queensland, 176 in number, discussed as a group by Derrick in 1942.[8] The second is the small group of five infections, two in ticks and three in patients, observed in Mantana between 1938 and 1941 and reported rather incompletely in three separate articles.[6,10,12] The third is the laboratory outbreak in 15 patients, one of whom died, at the Institute of National Health, Bethesda, Maryland.[11,13] And the fourth category includes a series of cases in the Western United States diagnosed and reported solely on the basis of positive serological studies on sick or convalescent individuals.[7]

Up until last year (1945), our total knowledge of the clinical manifestations of the disease, Q fever, was based on these four sources, so that it may readily be seen that the average physician in the United States would have had no direct concern with the disease and might well have considered it just one more medical curiosity. Such an opinion would have been supported by the fact that certain well established characteristics of rickettsial diseases, such as occur in various forms of typhus, and in the Rocky Mountain Spotted Fever (R.M.S.F.G.) group of tick-borne infections do not occur in Q fever. The cardinal differences may best be shown as follows:

	Typhus and R.M.S.F.G.	Q Fever
1. Rash	Common	Very rare
2. Leucocytosis	Common	Uncommon
3. Weil Felix Test	Positive	Negative
4. Extra cellular forms of rickettsiae	None	Common
5. Filterable form of rickettsiae	None	Occur
6. Mortality	May be high	Low (about 2%)

IDENTIFIED IN NEW LOCALITIES IN 1945

However, in 1945, Q fever passed from a limited orbit of concern to the broad sphere of world-wide interest when it was identified in three new localities: the Panama Canal Zone, Italy and the Balkans.[1]* In each instance the presence of Q fever infection was not believed to be due to a chance importation. Rather, it was considered as due to an endemic focus, long present, but only just brought to light by the increase in diagnostic

* Read before the Section on Public Health at the Seventy-fifth Annual Session of the California Medical Association, Hotel Biltmore, Los Angeles, May 7-10, 1946.
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* Subsequent to the presentation of this paper, Q fever was reported in Texas in the Public Health Reports for May 31, 1946, Vol. 61, p. 784.

facilities contingent upon World War II medical conditions. As the writer is familiar, first-hand, with the identification of the infection in Panama,[1] which was the first area discovered in Latin America, the exact circumstances which led to proving the presence of the disease should be briefly considered.

Of first importance was the fact that a tropical fever, clinically resembling a rickettsial infection of the Q fever type, had been recognized in this area for years but adequate diagnostic studies necessary for its detection had never been carried out. Of equal importance was the fact that primary atypical bronchopneumonia or virus pneumonitis of unknown etiology occurred commonly, and consequently offered an excellent opportunity to study the cause of this baffling problem in the tropics. In a diagnostic survey of this condition which included guinea pig inoculation studies, the first case of Q fever was encountered in a soldier who had not been out of the Canal Zone in many months. Not only were the rickettsia recovered after animal inoculation and a strongly positive complement fixation test secured on the patient's blood serum, but subsequent immunization and neutralization tests carried out at the National Institute of Health at Bethesda, Maryland, proved the identity of the Panamanian strain of Q fever rickettsia and the American strain in the United States. The splendid collaboration of the United States Public Health Service in this work greatly facilitated the complete diagnostic studies necessary to establish beyond a doubt the presence of Q fever in Central America.

With the establishment of new and widely separated foci of Q fever infection, its increasing importance to the medical profession is obvious. It seems certain that the presence of this disease will soon be detected in other new localities as our knowledge concerning it grows and as modern diagnostic tests are applied more widely. Because of the mounting interest in Q fever, a review of the little-known facts in regard to its origin and transmission are of paramount importance today.

HISTORICAL

The first published accounts on Q fever came out just ten years ago when Derrick reported the clinical findings in nine patients, all of whom were slaughter-house workers,[9] and Burnet and Freeman reported their laboratory studies showing that the infection was rickettsial in origin.[2] They demonstrated the febrile response of guinea pigs following the injection of patients' blood, the development of a specific immunity in these guinea pigs, and the presence of rickettsia in the livers and spleens of mice inoculated with infected guinea pig tissue although the infection transmitted to mice was unapparent clinically. The next year, 1938, specific serum agglutination tests were reported by the same authors in the *Medical Journal of Australia*.[3] This same journal contained a series of articles on Q fever in 1939. A number of articles also appeared on this subject in the *Australian Journal of Experimental Biology and Medical Science* between 1938 and 1942. The name *Rickettsia burneti* was accepted for the specific type of rickettsia causing Q fever infection.

In December, 1938, Cox reported the identification of Q fever infection in ticks in Montana.[6] This infection occurred in a filterable virus form. At the same time Dyer described the first patient in the United States (Montana) with the disease, Q fever.[10] In 1940 the laboratory outbreak of Q fever at the National Institute of Health was described in the U. S. Public Health Reports. Fifteen individuals were affected and all had pneumonitis. It was noted that the laboratory workers who contracted the disease were in different parts of the building and some were not even in direct contact with the experimental studies which were in progress. Since then, the same journal has carried a series of articles dealing with the cultural characteristics, immunology and epidemiology of the disease. In the last five years a few articles have appeared in other medical journals, including a report of two additional American cases occurring in Montana in 1941.[12]

Q FEVER INFECTION IN ANIMALS

In seeking an animal source of infection, it was soon found that a small bush animal in Queensland, the bandicoot, *Iscodon torosus*, served as a reservoir for *Rickettsia burneti*. On Moreton Island 34 per cent of the bandicoots showed positive serum agglutination tests for Q fever. Rickettsia were recovered from ticks removed from bandicoots. Three other marsupials and seven species of rodents proved susceptible to laboratory infection. Two species of rats showed positive serum agglutination tests.[8]

The demonstration that approximately 1.5 per cent of 984 cattle tested in Queensland showed positive serum agglutination tests for Q fever, and that calves were susceptible to laboratory infection proved of great epidemiological significance; because, aside from laboratory workers, nearly all cases of human infection have been described in either slaughter house or dairy workers whose occupation brought them in contact with cattle, alive or dead.[8]

Q FEVER INFECTION IN TICKS

A tick, *Haemaphysalis humerosa*, is commonly found on bandicoots and probably serves as a natural host for *Rickettsia burneti*, as it may be found in large numbers in the epithelial cells lining the intestinal canal and in the intestinal lumen of these animal parasites. These ticks could readily be infected in the laboratory in every instance when they were allowed to feed on guinea pigs previously inoculated with Q fever, and they can in all stages transmit this infection to guinea pigs. Hereditary transmission in these ticks has not been proven. *Haemaphysalis humerosa* attacks small animals only and is found on other animals than the bandicoot, including the opossum. Another tick, the scrub tick, *Ixodes holocychus*, is also an ectoparasite of the bandicoot and is a host for Q fever rickettsia. However, unlike Haemaphysalis, it attacks not only small animals, but also cattle and

man. At least three other ticks parasitic to small animals may harbor *Rickettsia burneti.*

Also, a common cattle tick, *Boophilis annulatus,* can take up Q fever rickettsia from calves and retain them for months. They are present in its feces, where they have been shown to remain infective for as long as 87 days. Two other common cattle ticks can also act as vectors, and a kangaroo tick is known to be susceptible to laboratory infection.

PRESENT CONCEPT OF HUMAN INFECTION

In Queensland it is evident that the bandicoot acts as a reservoir for Q fever infection and that a tick acts as a vector to complete the basic cycle of infection from bandicoot to bandicoot. Another tick acts as a vector between bandicoots and cattle and probably man. In only a few instances has a history of tick bites preceded the development of Q fever in humans. It is presumed that an individual is directly infected by the tick only when feces are first dropped on the skin and the tick then breaks the skin through the fecal deposit, thereby introducing rickettsia into the blood stream.

It is commonly believed at present, although not proven, that most humans are infected by dry tick feces containing viable rickettsia and that this material is inhaled as dust. It might cause infection by contact with an abrasion in the skin. The portal of entry by inhalation would best explain the widespread but irregular infection in the abattoirs and the repeated laboratory outbreaks which have occurred, often involving personnel not directly connected with the experimental work. A similar mode of infection may also be responsible for certain virus infections, such as ornithosis.

DIAGNOSTIC STUDIES

Accurate diagnosis of Q fever has heretofore been retarded for certain very definite reasons. First, the epidemiological and clinical features of the disease have not been widely known among practicing physicians and consequently satisfactory diagnostic criteria have not been applied. Second, animal inoculation studies to determine the etiology of the disease are laborious and require technical skill which is frequently not available. Third, because the antigen for serum agglutination tests and complement fixation tests has not been available for general use, these tests have not been practical clinical procedures. Fourth, laboratories in Australia and the United States which have carried out experimental and diagnostic studies dealing with Q fever have had serious laboratory infections, incapacitating their personnel, greatly handicapping the studies.

Although a definite diagnosis of Q fever cannot be made from the clinical findings alone, the presence of this infection may be suspected in cases of atypical bronchopneumonia (virus pneumonitis) of unknown etiology and similar febrile illnesses unaccompanied by pneumonitis.[5] At present, unless facilities for guinea pig inoculation studies are available, a positive diagnosis of Q fever infection can only be made from serological studies. The results of such studies will usually come too late to be of value during the course of the acute illness, which usually lasts seven to ten days, as the agglutination and complement fixation tests are not clearly positive until the second week after onset of the disease. However, serum may be forwarded to the National Institute of Health at Bethesda, Maryland, for these serological tests, and positive results will establish the identity of the infection.

SUMMARY

1. The incidence, certain historical aspects and the epidemiology of Q fever infection have been reviewed.

2. The presence of the etiological agent, *Rickettsia burneti,* which causes Q fever has recently been reported from Panama, Italy, the Balkans and Texas where it has caused "virus pneumonitis" infections.

3. As Q fever is now known to be widely spread throughout the world, and as serological tests satisfactory for diagnosis have been developed, this infection assumes an increase in clinical and public health importance since its discovery ten years ago.

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The Treatment of Malignant Melanoma — Report of 862 Cases*

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THIS report embodies our experience on the Mixed Tumor Service of the Memorial Hospital for Cancer and Allied Diseases of New York City from 1917 to 1946. We reviewed 951 cases of malignant melanoma, of which 862 were available for critical analysis and 595 for determination of five-year end-results.

The term melanoma is used to designate the malignant tumor. We have discarded synonyms which are morphologic or genetic in purpose. Pigmented nevus or neuronevus is used to designate the benign precursory lesion rather than the confusing term, benign melanoma. The analysis is confined entirely to the malignant tumor, melanoma.

ETIOLOGY AND INCIDENCE

More than 50 per cent of our patients related a history of pre-existing nevus. The early signs of malignant degeneration were alteration in color, increased blackness, elevation, itching, pain or bleeding.

Trauma was alleged to have initiated these changes in not over one-fifth of the cases. Even this was a doubtful factor in most instances as the trauma appeared to be insignificant and probably served only to focus the patient's attention to a pre-existing nevus which was already beginning to show malignant change. Chronic irritation, as in the collar or belt-line, or from a shoe, on the other hand, should be given serious consideration as a possible stimulant.

Table 1 reveals the incidence of various *primary sites* in this series. It shows that there was a preponderance of involvement of the lower extremity as compared with the upper extremity, whereas the incidence of pigmented nevi is exactly the opposite. Also it discloses that the feet are a common site, almost as many occurring there as in the entire upper extremity. The nail bed is a favorite location. The group of 13 ano-rectal melanomas is probably the largest single collection as yet reported. The oro-nasal mucosal series represented about 3 per cent of all of our cases—about equally distributed in the gums, palate, nasal cavity and paranasal sinuses. There were 29 malignant melanomas of the vulva and two in the vagina. We found no primary visceral melanoma, all of our cases being confined to the skin, the mucocutaneous junctions and adjacent mucosa, and the eye (choroid and conjunctiva).

Table 1.—*Primary Site of Melanoma from 1917 to 1946*

The Memorial Hospital for Cancer and Allied Diseases, New York, N. Y.

Site		Per Cent
Lower Extremity:		27.0
Exclusive of feet	12.7	
Feet, exclusive of nails	12.2	
Subungual	2.2	
Head and Neck		23.1
Trunk		17.9
Upper Extremity:		13.7
Exclusive of hands	10.1	
Hands, exclusive of nails	2.3	
Subungual	1.2	
Eye		8.6
Vulva and Vagina		3.6
Oro-Nasal Mucosa:		2.6
Lip	0.6	
Gingivae	0.6	
Palate	0.4	
Paranasal sinuses	0.5	
Rectum and Anus		1.5
Genitalia, Male		0.4
Unknown Primary Site		1.5

Distribution according to site is based upon 851 cases, since the site was not stated in 11 of 862 cases reviewed.

Chart I reveals that the cases were almost equally divided between the *sexes*, not only as a group, but also in the various *age-groups*. The majority of cases appeared in the 35- to 70-year period. The youngest patient was four months, the oldest, 86 years. There was a female preponderance in the extremities and ano-rectal area, but this was not significant.

There was a series of 15 patients of *prepubertal age* who had tumors histologically classified as malignant melanomas. Although the microscopic appearance of these pigmented tumors is so iden-



Chart I.—Age distribution in 862 patients with melanoma.

* Read before the Section of General Surgery at the Seventy-fifth Annual Session of the California Medical Association, Los Angeles, May 7, 1946.
From the Mixed Tumor Service, The Memorial Hospital for Cancer and Allied Diseases, New York, N. Y.

tical with their congeners of adult life that pathologists cannot distinguish between them, their behavior is not in keeping with their anatomical structure. None of these melanomas metastasized and all of the patients have survived indefinitely. It must be accepted that this tumor has a most definite etiologic relationship to hormonal factors originating in pituitary, gonads and adrenal cortex. Inasmuch as the behavior of this tumor is so benign and the prognosis is so good, it would be well to classify it separately as prepubertal melanoma. One important conclusion to be drawn from this observation is the wisdom of removing deeply-pigmented moles in infancy and childhood.



Figure 1.—Melanoma of skin of left upper abdominal wall in a mulatto male with satellite and left breast skin lesions and metastases to left axillary lymph nodes.



Figure 2.—Showing the very extensive area remaining for skin grafting following a very radical excision "in continuity" of the involved skin and underlying fascia, combined with a radical mastectomy.

Only ten (1.2 per cent) of the 862 patients with malignant melanoma were Negroes and the majority of these were mulattoes. Melanoma in the Negro seems to occur more commonly in the mouth, nail bed and on the soles of the feet.

END-RESULTS OF TREATMENT

Of our 862 patients, 552 or 64 per cent had recurrent malanomas, i.e., had received prior treatment elsewhere. All of these patients are included in our statistics. We have listed every patient with melanoma who reported to our clinic, regardless of whether they were beyond help through treatment, or did not return after the initial visit.

In Table 2, it is evident that patients in the age group of puberty through 24 years had the poorest prognosis. The curability in these young adolescent patients was equivalent to about one-half of the over-all five-year salvage of 10 per cent. If we exclude the patients of the prepubertal age, the over-all five-year salvage would be about 9.5 per cent. There is no significant difference between the sexes.

The five-year end-results by primary site are presented in Table 3. It shows that the best end-results were obtained for malignant melanoma involving the hands, feet, eye and skin of the trunk. It is realized with dismay that none of the patients with mucosal melanoma survived five years. Malig-

TABLE 2.—*Five-Year End-Results in 595 Cases of Melanoma In Relation to Age Groups*

Age Period	Total Cases	Per Cent of Five-Year Survivals
Prepuberty	10	100.0
Puberty through 24 years	145	5.3
25 through 39 years	145	8.2
40 through 59 years	250	9.6
60 years and over	168	10.0

TABLE 3.—*Five-Year End-Results in 595 Cases of Melanoma In Relation to Primary Site of Tumor*

Site	Number	Per Cent
Lower Extremity:		
Leg, exclusive of feet	73	4.8
Feet, exclusive of nails	77	14.5
Subungual	9	11.0
Head and Neck	138	8.8
Trunk	98	9.8
Upper Extremity:		
Arm, exclusive of hand	59	6.3
Hand, exclusive of nails	16	42.0
Subungual	9	11.0
Eye	58	12.8
Vulva and Vagina:		
Vagina	2	None
Vulva	23	4.5
Oro-Nasal Mucosa:		
Lip (muco-cutaneous)	3	66.7
Gingivae	4	None
Palate	3	None
Paranasal sinuses	6	None
Rectum and Anus	5	None
Genitalia, Male	3	None
Unknown Primary Site	8	12.5

Over-all five-year survival-rate, 9.7 per cent; no sex difference.

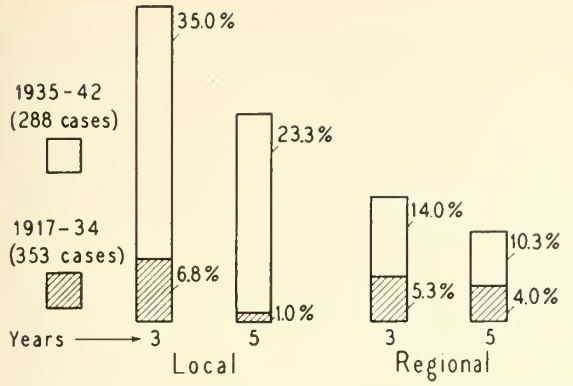


Chart II.—Three- and five-year end-results in the treatment of melanoma, in relation to the time period and the extent of the disease.

nant melanoma of the extremities, exclusive of the hands and feet, yielded about one-half of the overall survival rate of 10 per cent.

Chart II offers a comparison of non-selected groups of patients with malignant melanoma treated by surgical excision and/or by radiation therapy. Before 1935, irradiation was the primary mode of treatment. The modalities employed were low and high voltage x-rays, telecurie therapy by a large radium bomb or pack, superficial radon plaques, and the interstitial deposition of gold radon seeds. In 1935 surgical measures were established as the primary therapeutic agent. We, therefore, have two groups of unselected cases suitable for comparing the results obtained with irradiation and surgery. For localized melanoma, the later surgical treatment secured five times the salvage for three years and 23 times the salvage for five years, than was obtained by primary radiation therapy. Whenever metastases to regional lymph nodes had occurred, the salvage at three years was nearly three times greater and at five years two and one-half times greater as a result of predominantly surgical treatment. It could be stated more simply and conclusively that radiation therapy of any type and degree was completely ineffective.

In Chart III a comparison is shown between all of the patients treated by irradiation and by surgery, regardless of the time period. For localized melanomas, surgery yielded 38.4 per cent salvage at three years, as against 1.6 per cent for irradiation; and 17.7 per cent as against none for five years. The same proportionate increase in salvage is revealed in the treatment of patients with metastases to the regional lymph nodes. Included in the analysis are 18 patients surviving from ten to seventeen years, all of whom had undergone surgical treatment, with or without irradiation. No patient was treated solely by irradiation. These patients all had dissection of the regional lymph nodes and in seven patients the nodes were positive for metastatic melanomas.

The most important surgical principle in the treatment of melanoma is wide and deep excision of the primary lesion. This is based on the known frequency of local recurrence after conservative surgical removal and the tragic development of associated satellite lesions due to early permeation of the subdermal and deep fascial lymphatic channels, with retrograde local metastases vertically back toward the skin along the connecting fibrous septa and centrifugally in the immediate vicinity of the local lesion. Regardless of the size of the primary melanoma, at least six to ten centimeters of skin border and a still wider circle of deep fascia should be removed *en masse* with the primary tumor. The skin margins should be undermined laterally as very thin, almost full-thickness flaps, so that the subcutaneous fat overlying the wider circle of fascia will be removed with it from the underlying muscles. In the majority of cases primary skin grafting is required to close the defect.

If the regional lymph nodes are not palpable, the question of elective dissection of these node-bearing regions depends on many factors, such as the location of the primary melanoma, the histologic picture, the age of the patient, and the ability of the patient to return for regular follow-up examinations. If the regional lymph nodes are positive for metastatic melanoma, they are removed by radical dissection about two weeks later, or preferably "in continuity" at the time of the initial operation.

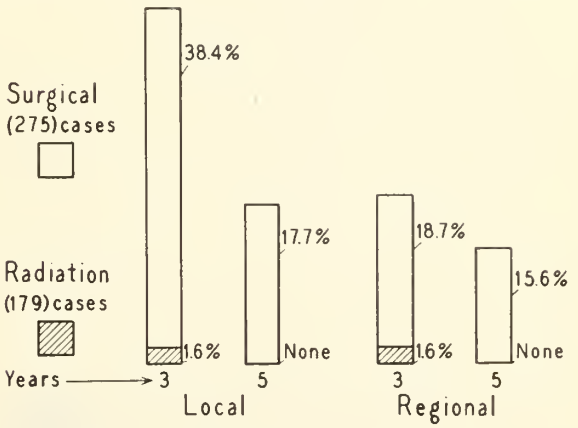


Chart III.—Three- and five-year end-results in the treatment of melanoma, in relation to type of treatment and the extent of the disease.

The operation which we call "wide excision of the local melanoma with radical dissection of the regional lymph nodes in continuity" is based on the soundest oncologic principle as yet evolved. It is the same principle as the one underlying the operation of radical mastectomy for cancer of the breast and the one-stage Miles operation for cancer of the rectum. It is an attempt to remove the primary melanoma and all of its lymphatic drainage basin, including the first group of regional lymph nodes, *en masse*. Unfortunately, this is not always possible in cases where the primary lesion is at a great distance from the regional nodes, as in the hand or foot. In these cases one may have to perform a very radical procedure as an interscapulothoracic amputation of the upper extremity, removing the scapula and most of the clavicle while encompassing the entire axilla. In the lower extremity

for primary melanoma of the foot metastatic to inguinal and femoral lymph nodes, we resort to a hip joint disartieulation eombined with a retroperitoneal disseetion of the iliae and obturator lymph nodes. One of us (G.T.P.) has reeently performed two hemipelvectomies for melanoma in which the innominate bone was removed, together with the lower extremity.

Chart IV is based on too few eases in several of the eategories, but is presented only beeause we feel it shows a definite trend toward greater salvage in keeping with the institution of more radieal surgery. It reveals that the more radical surgery of local excision plus regional node dissection for loealized melanoma offers a better three- and five-year salvage, and that the same applies to regional metastatic melanoma when eomparing the "continuity" operation with separate loeal exeision plus regional node dissection.

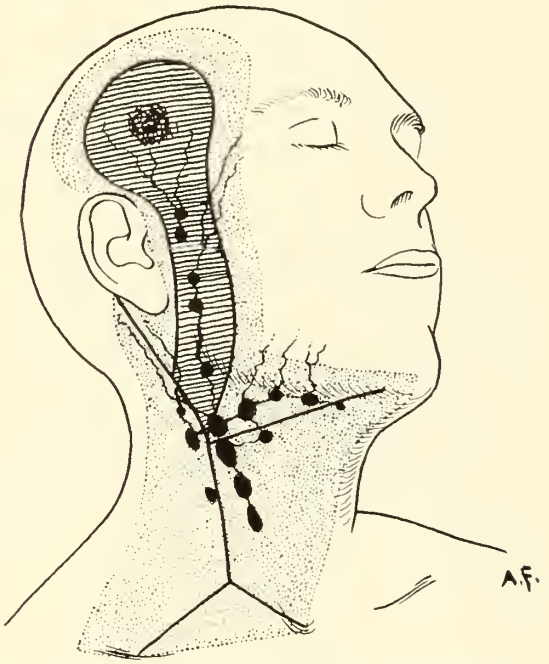


Figure 3.—To illustrate the principle and scope of the excision and dissection in continuity of a primary melanoma situated on the temple with metastases to the cervical lymph nodes.

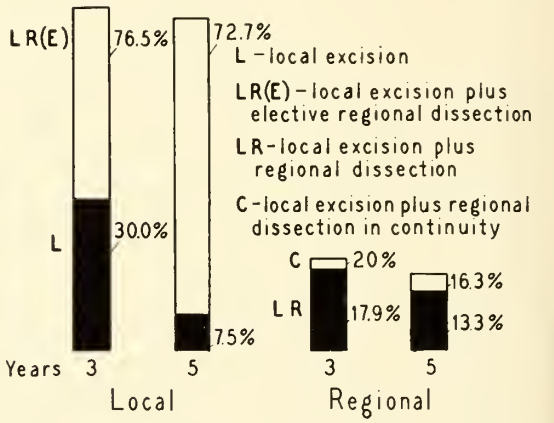


Chart IV.—Three- and five-year end-results in the treatment of melanoma in relation to the type of surgical treatment and extent of disease.



Figure 4.—Photograph taken at operation.



Figure 5.—The same patient ten days after the operation.

In the last two years, in 147 patients with malignant melanoma, we performed the "continuity" operation in 34 cases; 23 are still alive without evidence of disease and three are living with residual melanoma. Of six patients undergoing radical amputations, four are living without evidence of disease, and two are alive with recurrent melanoma.

SUMMARY AND CONCLUSIONS

We have presented an analysis of 862 cases of malignant melanoma, of which 595 were available for five-year end-result study, with an over-all salvage of 9.7 per cent. Radiation therapy alone in all its forms and combinations has yielded no five-year survivals. Surgical attack has resulted in 38.4 per cent three-year and 17.7 per cent five-year salvage for localized melanomas, and 18.7 per cent three-year, and 15.6 per cent five-year salvage of patients with melanoma metastatic to regional lymph nodes. In addition, we have presumptive evidence of a trend toward greater saving of life by widening the scope of our radical surgical attack through the institution of one fundamental principle of cancer surgery, namely, the *en masse* excision of the primary lesion with its entire lymphatic drainage basin and the dissection of the regional nodes, "in continuity."

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Rupture of the Heart

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CARDIAC failure is a condition which may kill a person instantly.[2] Such sudden failure may be due to a thrombosis of a coronary artery, rupture of the interventricular septum,[1] rupture of the ventricles, or hypertension with myocardial failure. Myocardial infarction results from ischemic necrosis of heart muscle. The necrotic muscle is gradually removed and replaced first by open granulation tissue rich in vessels, and later by fully formed scar tissue. This scarring of necessity develops slowly from the periphery of the necrotic area, leaving a central area of flabby, necrotic tissue which has very little tensile strength. The weakened area may give way and bulge outward so that aneurysm of the heart is formed with marked thinning of the wall, and rupture may occur through the center of the necrotic tissue. Rupture of the left ventricle through a recent infarct is unusual[4] but may occur, particularly when the necrosis of the muscle is at its height and before significant replacement by scar tissue has taken place. It leads to very rapid death by cardiac tamponade, but if the tear is very small, bleeding may be so gradual that death is delayed for hours.

Friedman and White[5] found ten cases of cardiac rupture in 270 instances of myocardial infarction among nearly 3,000 autopsies at the Massachusetts General Hospital. All were found in patients with acute infarction. However, in a series of cases of patients in mental institutions, Jetter and White[6] report an incidence of 73 per cent of rupture of the heart with cardiac tamponade in cases with recent myocardial infarction. In spite of the fact that rupture of the heart is not a rare condition, many physicians and coroners still neglect to consider this condition as a cause of death, and are usually satisfied with a customary diagnosis of coronary heart disease or hypertension with myocardial failure. This fact was admirably brought out by Simberg[9] and Levine[7] who pleaded for a more accurate appraisal of all sudden deaths attributed to heart disease. Correct diagnosis can be obtained in only one way: all physicians and coroners should insist on postmortem examinations in every case of sudden death, and if no adequate cause is determinable by examination of the chest and abdomen, then the skull should be opened and the brain carefully examined. This will obviate the common practice of routinely signing a death certificate giving apoplexy or coronary occlusion as the cause of death.

Rupture of the heart with or without classical signs or symptoms suggesting myocardial infarction is a condition which the general practitioner either believes does not exist or which is so rare that it can be overlooked entirely as a cause of sudden death. Yet, in cases of sudden death, postmortem examination will not infrequently disclose a rupture of one of the ventricles through the area of a recent infarction. Clinical symptoms may be entirely lacking as in those cases of so-called "silent coronary." That this condition is far from rare is evidenced by the following four case reports of patients who died suddenly, with autopsy revealing rupture of the anterior surface of the left ventricle.

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The four deaths occurred within a short period of time.

Case 1.—An elderly, emaciated white male 81 years old entered the hospital in August, 1942, with a diagnosis of arteriosclerotic heart disease, senility, chronic bronchitis, and hemorrhoids. The hemorrhoids were treated by a series of injections with excellent results. Six months later the patient complained of bladder distress. Cystoscopy revealed a normal bladder. The only complaints in 1943 were bladder distress and constipation. In 1944, internal hemorrhoids were injected. Signs of increasing senility appeared in 1945, but otherwise the patient's condition was fair until the night of March 28-29, 1946, when he was restless in bed. At 6:15 a.m. on March 29 the patient was found dead in bed. Autopsy revealed an old healed infarct in the left ventricle, and at the apex on the anterior surface there was a rupture of the myocardium 1 cm. in length with 200 cc. of blood in the pericardial sac. The kidneys showed chronic interstitial nephritis, the liver, chronic passive congestion. The lungs were anthracotic and there was minimal sclerosis of the aorta. Microscopic examination revealed hemorrhage into and degeneration of the muscle fibers of the heart with a mixture of white blood cells infiltrated through all layers of the heart wall—findings typical of a recent myocardial infarction.

Case 2.—This 81 year old white female fell in May, 1946, and received an intertrochanteric fracture of the left femur. Open reduction was done and a Neufeld pin inserted. The postoperative course was uneventful and the patient entered this hospital June 12, 1946, for convalescent care. Examination revealed an emaciated elderly female not acutely ill or in distress. Blood pressure was 200/130; pulse 88; respirations 20. The red blood cell count was 3,250,000 with 58 per cent hemoglobin; white blood cell count 4,800 with 71 polys, 22 lymphocytes, 5 monocytes and 2 basophiles. There were a few stippled red cells. The Kline was negative. X-rays showed good alignment of the bony fragments, with the Neufeld pin in place. The anemia was treated with ferrous sulphate, but because of a resultant diarrhea it had to be discontinued. Treatment consisted of active and passive movements of the left leg, bed rest and nursing care. The patient's progress was excellent until the night of July 2-3 when she became very restless and got out of bed three times but was returned to bed each time with no complaints. A short time later, at 5:40 a.m. on July 3, 1946, the patient was found dead on the floor beside her bed. Autopsy revealed a rupture 3 cm. long in the anterior surface of the left ventricle with hemopericardium. The aorta and aortic valve showed atherosclerosis. The coronary arteries were sclerosed but patent at the ostia and there was evidence of a recent myocardial infarction.

Case 3.*—A 49-year-old white male who entered the hospital on April 14, 1946, had had many previous admissions for supracondylar amputation of the left leg, neurolysis of the left sciatic nerve and phantom pain in the left lower extremity. He walked on crutches and worked as a barber in the hospital barber shop. On May 31, 1946, he complained of intermittent precordial pain, vomited three times and stated that the pain was equally severe in both arms. His temperature was 99.2, pulse 82, respirations 20. There were no rales in the chest, but increased breath sounds and dullness were noted in the lower left lung field and at the right lung. Examination of the heart revealed frequent extrasystoles but no murmurs. A diagnosis of bronchio-pneumonia of the left lower lobe was made, the patient was put to bed and a course of sulfadiazine was started. His condition improved rapidly, the chest pain disappeared and on the third day the patient was up and around and returned to his duties in the barber shop. An electrocardiogram taken June 13, 1946, showed a coving effect of the S-T segment in all leads. A diagnosis of recent coronary occlusion with evidence of myocardial damage was made. However, the patient insisted that he felt well, and he could not be kept in bed. At 1 p.m. on June 14, the author saw the patient walking on his crutches about the hospital grounds. Two hours later, the patient became very dyspnoeic, was cyanotic, and showed some twitchings of the body. He was pronounced dead at 3:10 p.m. At autopsy, both lungs showed marked passive congestion. The pericardium contained 100 cc. of blood. All valves were normal. The aorta and both coronary arteries showed a moderate degree of atherosclerosis. On the anterior wall of the left ventricle there was an area about 2 by 2 cm. of thin, friable, bulging heart muscle, the site of the recent infarction of May 31. Below this area was a fresh infarct measuring 3 by 3 cm. and consisting of hemorrhagic, friable, and bulging heart muscle. The center of this second area was separated for a distance of 1.5 cm. and a fresh blood clot extended through this ruptured area from within the ventricle outward into the pericardial sac.

Case 4.—This 73-year-old white female entered the hospital on March 1, 1943, with a diagnosis of arteriosclerotic heart disease. Nine years previously a carcinoma of the cervix had been treated with radium. Just before admission she underwent a vulvectomy for a Grade II squamous cell carcinoma of the vulva, which was followed by a right cerebral vascular accident with resultant left hemiplegia. During 1943 she had several minor convulsions which lasted a few minutes and then disappeared entirely. These convulsions recurred at long intervals during the next three years. In August, 1946, two small draining sinuses were found over the sacrum. The patient remained a nursing problem because of the old hemiplegia and the two draining sinuses. On October 10, 1946, she suddenly developed substernal pain which radiated to the neck. A diagnosis of angina pectoris was made, and appropriate treatment was started. Eleven hours later the patient was found dead in bed. Autopsy revealed a pericardium filled with 300 cc. of blood. In the anterior wall of the left ventricle there was a rupture of myocardium 1 cm. long, with two smaller pinpoint openings on each side of it. The rupture had occured in the center of a large area of recent myocardial infarction, the result of occlusive thrombus in the anterior descending branch of the left coronary artery. The aorta and both coronary arteries showed atherosclerosis.

COMMENT

The first two cases disclosed rupture of the left ventricle due to a recent infarction, yet clinically no symptoms presented themselves. Therefore, the true diagnosis was established only by a careful autopsy examination. The third case was most interesting in that a diagnosis of coronary insufficiency was made antemortem, yet the patient was asymptomatic and refused to stay in bed. Substernal pain was absent and the patient was able to get around on his crutches and perform his usual duties as a barber. Then, 15 days later, the myocardium ruptured through an area of a second infarct below an already weakened part of the ventricle which showed a definite aneurysm of the heart wall. Case four also had antemortem coronary insufficiency and developed a rupture through the site of a new infarction. Examination revealed the scarred muscle of an old infarct.

* Dr. T. R. Stepman, Assistant Resident in Medicine, Fairmont Hospital, assisted the author in the clinical study and autopsy of Case 3.

SUMMARY

1. Rupture of the heart following a recent myocardial infarction is a far from rare cause of acute cardiac failure. Signs and symptoms of the underlying myocardial infarction are sometimes entirely lacking.

2. Four cases are presented, in two of which no symptoms of coronary insufficiency were present. The other two cases gave a definite history of cardiac distress. In one case (Number 3) an area of rupture of the heart was noted in a new area of infarction 15 days after an earlier infarction had already weakened the heart muscle and produced an aneurysm of the heart wall.

3. A plea of routine postmortem examinations is made in all cases of sudden death. This will obviate the practice of routinely signing death certificates in these cases with the causes listed as apoplexy, coronary thrombosis, or heart failure due to hypertension.

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Respiratory Mold Allergy — A 12 Months Atmospheric Survey in San Francisco

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CONSIDERABLE evidence of the importance of mold allergy in the etiology of some cases of asthma and allergic rhinitis has accumulated in medical literature. There are a number of clinical reports in which atmospheric contamination by mold spores has been shown to be a factor in producing allergic respiratory symptoms[2, 3, 6, 10, 11, 12, 14]. These studies have chiefly incriminated two molds, Alternaria and Hormodendron. Not only have these two molds been the most frequent clinical offenders but they have usually been the most abundant numerically in atmospheric surveys made in various parts of the United States.[1, 4, 8, 11, 13]

The present study was undertaken because of the suggested importance of the problem and the paucity of available data relating to the Pacific Coast. From a theoretical point of view San Francisco would appear to be a city where atmospheric mold spores might be found in abundance. An average annual rainfall of over 20 inches falling in the winter months and frequent fogs in the summer period give a rather damp climate. The temperature is usually moderate and rarely falls to freezing levels. Our object was to determine the type of mold spores present in the atmosphere and to obtain data on their relative frequency.

From the Department of Pediatrics, University of California Medical School, San Francisco, and the Department of Biology, Mills College, Oakland, California.

METHODS

Both the culture method and the slide method were used in this study. Standard size Petri dishes containing Difco Sabauraud's medium were exposed twice a week for half an hour on a southern window ledge outside of the fifth floor of the clinic building on the campus of the University of California Medical School in San Francisco. The building is partially protected from the prevailing west wind by a forested hillside. In addition vaseline coated slides were exposed daily for 24 hours on the same window ledge. The Petri dishes were mailed to Mills College, Oakland, immediately after exposure. Once a week the vaseline slides exposed during the preceding seven days were also sent to Mills College where both slides and Petri dishes were examined by one of us (H.W.G.). The colonies which developed on the Petri dishes were counted and identified as to genus. The slides were examined microscopically over an area of 5.3 square millimeters and insofar as possible the spores present on that area were counted. No attempt was made to identify spores by genera on the slide.

Ten culture plates were exposed during the study at another area in San Francisco in the Marina residential district, and five more were also exposed in Sacramento, California.

RESULTS

Our survey indicates that Hormodendron spores

TABLE 1.—*Type and Frequency of Mold Colonies Cultivated During a Period of 12 Months in San Francisco*

(Exposure of culture plates was twice a week for half an hour.)

Genera	No. of Colonies	Percent of Total
Hormodendron	567	59.5
Penicillium	183	19.2
Macrosporium	42	4.5
Botrytis	40	4.2
Saccharomyces	38	4.0
Candida	35	3.7
Alternaria	23	2.4
Cephalosporium, Monilia, Mucor, Spirotrichium, Spicaria, Rhizopus	25	2.4
	953	100.0

are the most common in the atmosphere in San Francisco and that Alternaria spores are rarely present. Table I indicates the various genera identified on the Petri dishes in their order of frequency and it covers the entire 12-month period of October, 1942, through September, 1943. It will be seen that almost 60 per cent of all colonies were Hormodendron and only 2.4 per cent were Alternaria. As already mentioned these two molds are those to which the greatest clinical importance has been attached. Other molds have not appeared to be clinical offenders nearly so often. Numerically, in addition to Hormodendron, one other mold has a prominent place in Table 1, namely Penicillium. Just over 19 per cent of the colonies were of this genus. While several other molds were identified, none of them appeared in any considerable number.

Figure 1 shows the average daily number of all types of colonies found on the Petri dishes. It also indicates the number out of this total which were Hormodendron and Penicillium.

As a check on how representative the main station at the Medical School was, plates were occasionally exposed to outside air in a section of San Francisco considerably removed from the school. Ten such plates exposed at different times of the year did not demonstrate any significant difference either in number or type of colonies. They grew 109 colonies of which 65 per cent were Hormodendron, 22 per cent Penicillium and none Alternaria. A few plates were also exposed 90 miles distant in Sacramento* where there is less dampness and a hot summer characteristic of the interior California valleys. Here again Hormodendron was the most common colony on the Petri dishes, over 80 per cent being of this genus. Penicillium was again the second most common and Alternaria occurred in only 2.2 per cent of the colonies. This suggests considerable uniformity in the areas studied.

Figure 1 shows that no marked seasonal incidence was found in respect to either the total number of colonies or the genera Hormodendron and Penicillium. This is in contrast with some other reports such as those from Boston[11] and Chicago[1] where the period from May through November is one of considerable increase in atmospheric spores. Durham,[5] referring to the United States generally, makes the statement that 90 per cent of the total yearly crop of Hormodendron and Alternaria spores is found between November and May inclusive—a seven-month period. This did not hold true of our study where only 72 per cent of the combined Hormodendron-Alternaria crop fell in that period. If there were no seasonal fluctuation present at all, 58 per cent of the crop would be expected in the period. This lack of a clear-cut seasonal fluctuation obviously makes more difficult the detection of a clinical mold sensitivity by history.

The total number of colonies per Petri dish was not high. Comparison with other reports is difficult and of doubtful significance as so many uncontrolled factors are involved. It is of interest never-

* These plates were exposed through the courtesy of the late Dr. Edward S. Babcock, one each in July, November and December and two in August.

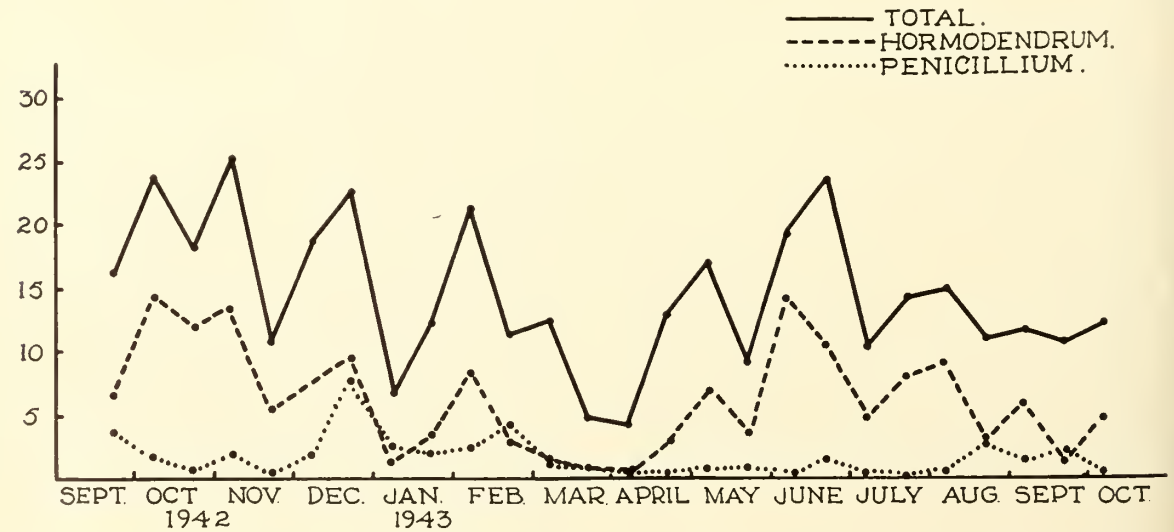


Figure 1.—Mold Counts in San Francisco (1942-1943). Total mold colonies are shown by the solid line. Hormodendron colonies are indicated by the broken line and Penicillin colonies by the dotted line. The average number of colonies resulting from a thirty-minute exposure is shown, calculated for semi-monthly periods.

theless to note that in our study the average number of colonies grown per Petri dish after 30 minutes' exposure was 16.4 at the main station at the Medical School and 11 for the 10 plates exposed elsewhere in San Francisco. A comparable period of exposure in Chicago and Boston, as nearly as can be determined from the reports, yielded about 39 and 15 colonies respectively.

ADDITIONAL OBSERVATIONS

We exposed vaseline coated slides daily in addition to employing the Petri dish method, and attempted to make spore counts directly from the microscopic examination of these slides. Some investigators have used this method exclusively not only to count the spores but to identify them, and claim to differentiate as many as eight genera by slide alone. It is our feeling that identification of most genera is not possible by this method and that the method is very unreliable at best. Indeed an experienced mycologist may not be able to determine whether a bit of material he is studying on a slide is a mold spore or a bit of dust of totally different origin. Spores of some genera are typical when completely developed but not recognizable when present in a poorly developed form as is frequently the case. This makes counting the spores difficult, quite apart from their classification. In addition, slide counting is made even more unreliable by the tendency of some spores to cluster. This same factor would, of course, also make colony counts on plates inaccurate. In the light of these facts, we were not surprised to find a poor numerical correlation between slides and culture plates when each was calculated on a "spore per square millimeter per 24 hour" basis. The plates showed one spore per square millimeter and the slides three tenths of a spore when calculated in this manner. Thus, the number of spores as calculated by the plate method was over three times that indicated by the slide method.

This report deals with the presence of mold spores in the atmosphere over a period of one year and does not attempt to evaluate their clinical importance in causing allergic symptoms. This has been established already, particularly by Feinberg. It is possible, however, that molds are of considerably greater importance in one part of the country than in another. From our survey it can be assumed that Alternaria, which appears to be the most important mold in a large section of the United States, can probably be ignored as a general atmospheric contaminant in San Francisco, and that Hormodendron is present in sufficient amount to have potential clinical importance.

At first glance, rather different deductions might be made from the data we obtained on scratch tests, (Table 2) in which almost twice as many positive reactions to Alternaria occurred as to Hormodendron. Eighteen per cent of 107 patients with respiratory complaints in the Children's Allergy Clinic gave positive scratch tests to Alternaria while 9.3 per cent (four) of 43 patients had positive scratch tests to Hormodendron. The implied inconsistency of being exposed more intensely to Hormodendron spores and reacting more frequently to skin tests with Alternaria may not be as great as it appears. Feinberg[7] considers Hormodendron and Alternaria, which are closely related members of the family Dematiaceæ, to have a common antigenic factor even though other factors specific for each of the two genera may possibly also be present. Alternaria extracts are frequently more potent in respect to the common factor than are Hormodendron extracts. This could explain an increased incidence of Alternaria reactions in individuals sensitized by Hormodendron. In support of this possibility in the present instance, all four patients who reacted to Hormodendron also reacted to Alternaria.

TABLE 2.—*Results of Scratch Testing Patients in the Children's Allergy Clinic with Extracts of Alternaria and Hormodendron**

	Number Tested	Positive Reaction Number	Positive Reaction Percent	Comments
Alternaria	107	20	18.5	3 were +++ 7 were ++ 10 were +
Hormodendron	43	4	9.3	2 were ++ 2 were +

* The extracts for these tests were obtained from Dr. Samuel Feinberg.

Also to be considered is the possibility that the atmosphere in our patients' homes may have contained more Alternaria spores than we found in the outside air. Petri dishes exposed in the homes of several patients who gave positive skin tests to Alternaria, however, did not indicate a greater incidence of Alternaria spores in these homes.

SUMMARY

1. A report is made on the type and frequency of mold spores found over a one-year period in the atmosphere of San Francisco.

2. Alternaria spores were shown to be relatively absent, while Hormodendron was the most common spore found. These two molds are probably of chief clinical importance in other sections of the United States.

3. No striking seasonal incidence of mold spores was found. This makes recognition of the patient with respiratory complaints due to mold sensitivity more difficult than would be the case if a clear-cut seasonal incidence were present.

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Use of Sulfasuxidine in Resection of Carcinoma of The Colon— Effect on Infection and Mortality*

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A STUDY of our cases of carcinoma of the large bowel was undertaken in an effort to determine whether the use of one of the sulfa drugs, such as sulfasuxidine, played any part in the incidence of infection, length of postoperative recovery period and the mortality rate. This study does indicate that chemotherapeutic measures play a part, but perhaps a relatively small one, in the general management of these surgical cases. Poth,[4] in his study of the effect of sulfasuxidine on the bacterial flora of the stool, showed that with its use there was a definite decrease in the number of organisms, and it is logical to presume that the drug should be valuable in colonic surgery. Nevertheless, excellent results were obtained in many cases before the advent of the drug. We feel that the general surgical management of these patients is of greater importance than chemotherapeutic measures. Careful preoperative preparation, meticulous surgical technique and individual postoperative care cannot be curtailed by the use of any of the new drugs now available. Clute[1] states that it is increasingly apparent in his clinic that many factors other than chemotherapy are responsible for the progress made in the surgical management of malignant lesions of the colon.

Newton[3] reported 114 cases of resection of the large bowel. In this series a test group and a control group were studied. In the test group the patients were given sulfasuxidine preoperatively. In the control group no chemotherapy was used. With the use of sulfasuxidine the incidence of complications was reduced from 58 to 25 per cent and the gross mortality was reduced from 19 to 3 per cent. When similar operative procedures (resection and anastomosis) of the two groups were compared, it was found that the incidence of postoperative infection was reduced from 43 to 6 per cent and the mortality from 22 to 3 per cent. He felt, therefore, that the use of sulfasuxidine in the preoperative and postoperative care of patients undergoing resection of the large bowel had a definite effect in reducing the number of postoperative infections and the mortality rate. Meyer[2] reported on 20 cases with an over-all mortality of 5 per cent and an average hospital stay of 13 days for patients who had had the drug for 7 to 14 days preoperatively. He gave a minimum of 84 grams of sulfasuxidine preoperatively.

We have used sulfasuxidine routinely in our clinic since January, 1943. When a diagnosis of malignant lesion of the large bowel has been made, sulfasuxidine (powder) in 5 gram doses is given three times a day for a period of 7 to 14 days unless the bowel is obstructed. A low-residue, high-protein, high-vitamin diet is prescribed. If the patient has a severe anemia he is admitted to the hospital and blood transfusions are given in order to bring the hemoglobin up to 80 per cent or better before surgery. All patients are admitted to the hospital two or three days before the contemplated surgery and are given a saline cathartic followed by daily colonic flushes, the last one being given 18 hours before operation. Many patients have volunteered that after taking the drug for one or two days they have noticed a lessening of the odor of the stool and improvement in bowel function. About 25 per cent of the patients have had an increased amount of blood in their stools. There has been no severe reaction to the use of sulfasuxidine in our clinic. Only two patients have had to discontinue its use; one developed nausea and the other a severe headache. We have used sulfathallidine in 12 cases not reported in this series. With the use of sulfathallidine there is more difficulty in getting the colon well cleaned out for surgery.

Our study of the cases in this clinic for the last 13 years shows that there were 460 cases of resection of the colon for malignant growth. Many of these patients had only a palliative resection. In other words, the malignancy had spread beyond the point of resection, but it was felt worth while

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TABLE 1.—*Type of Operation; Number of Cases in Which Sulfa Therapy Was Used; Number of Infections; Number of Deaths*

Type of Operation	Number of Cases	Number Received Sulfa	Number of Infections	Number Operative Deaths
Right Colectomy				
One-stage right colectomy	54	26	10	4
Two-stage right colectomy	13	3	4	1
Transverse Colon	13	6	4	0
Left Colectomy				
Mickulicz resection	24	2	7	2
Anterior resection	18	10	1	2
Resection with preliminary cecostomy	57	16	27	3
One-stage resection with cecostomy	29	20	3	1
One-stage resection end-to-end anastomosis	6	4	1	0
Rectum				
Perineal resection preliminary cecostomy	91	18	0	5
One-stage abdomino-perineal resection	107	55	20	11
Anterior resection	20	8	12	1
Abdomino-perineal resection with preliminary colostomy	15	1	8	3
One-stage resection end-to-end anastomosis	13	11	3	2
Total	460	180	100	35

to remove the original lesion even in the presence of liver metastases. Table 1 shows the type of operation that was done, the number of cases in which sulfa therapy was used, number of infections and number of deaths.

MORTALITY RATES

The mortality rate for the entire series was 7.6 per cent, as shown in Table 2. Of the 35 patients who died, 25 had not had sulfa therapy before surgery. In the group in which a right colectomy was done, only one of the five patients who died had received sulfasuxidine, and death in this case was the result of gangrene of the ileum from lack of blood supply due to an error in operating technique. This patient had two separate lesions, one in the cecum and one in the ascending colon, both being removed at the same operation with a rather wide resection of bowel and mesentery. The mortality rate in this group was 10.5 per cent for those who had not received sulfa therapy and 3.4 per cent for those who had the drug. In the 13 cases of carcinoma involving the transverse colon there were no deaths. There were 134 cases of carcinoma of the left colon with eight deaths. Six of the eight patients who died had not had sulfasuxidine before surgery. The mortality in this group was 7.3 per cent for those who had no sulfa therapy and 3.8 per cent in the group in which the drug was used. In the 246 cases of carcinoma of the rectum for which resection of one type or another was done there were 22 deaths. Of those who died, seven had been treated with sulfasuxidine. The mortality rate without sulfa therapy was 9.8 per cent and with the use of the drug 7.5 per cent.

INCIDENCE OF INFECTION

The incidence of infection is shown in Table 3. Of the 67 patients who had a right colectomy, 14 had wound infection. Only one of these had had sulfa therapy. Thirteen, or 34.2 per cent, of the 38 patients who did not have sulfa therapy had infection. Of the 29 who had sulfasuxidine, only one, or 3.4 per cent, had wound infection (excluding one patient who had peritonitis and died an operative death). In the group with lesions of the transverse colon, four patients had wound infection, of whom one had been given sulfasuxidine, an incidence of 16.6 per cent with the use of sulfa therapy and 42.8 per cent without the drug. Forty-three patients who were operated upon for carcinoma of the rectum developed wound infection (referring to the abdominal wound only). Eleven of these had been treated with sulfasuxidine. The incidence of infection for those who had the drug was 14.6 per cent, and for those who had no sulfa 40 per cent. (These percentages are based on totals not including 91 perineal resections.)

The average postoperative hospital stay (Table 4) varied considerably with the type of operation, and was affected more by the presence or absence of infection than by the use of sulfa therapy. In the group of right colectomies, the average postoperative hospital stay was 14 days for patients who received sulfa (one of whom had wound infection) and 24 days for those who did not. For patients with wound infection the postoperative hospital days averaged 34 and for those who had no infection the average was 16 days. In the 13 cases of carcinoma involving the transverse colon,

TABLE 2.—*Mortality Rate*

Type Operation	Without Sulfa Number Deaths	Without Sulfa Mortality Per Cent	With Sulfa Number Deaths	With Sulfa Mortality Per Cent	Total Number Deaths	Total Mortality Per Cent
Right colectomy	4	10.5	1	3.4	5	7.4
Transverse colon	0	0.0	0	0.0	0	0.0
Left colectomy	6	7.3	2	3.8	8	5.9
Rectum	15	9.8	7	7.5	22	8.9
Total	25	8.9	10	5.5	35	7.6

TABLE 3.—*Incidence of Infection*

Type Operation	Without Sulfa Number Infections	Without Sulfa Incidence Per Cent	With Sulfa Number Infections	With Sulfa Incidence Per Cent	Total Number Infections	Total Incidence Per Cent
Right colectomy	13	34.4	1	3.4	14	20.9
Transverse colon	3	42.8	1	16.6	4	30.3
Left colectomy	33	40.2	6	11.5	39	29.1
Rectum*	32	40.0	11	14.6	43	27.7
Total*	81	39.1	19	11.7	100	27.1

* Excluding 91 perineal resections (no abdominal wound).

TABLE 4.—*Average Postoperative Days*

Type Operation	Without Sulfa	With Sulfa	Without Infection	With Infection
Right colectomy	24	14	16	34
Transverse colon	18	16	15	22
Left colectomy	24	20	19	29
Rectum	29	23	21*	37
Total	27	20	20*	33

* Excluding 91 perineal resections (no abdominal wound).

the postoperative hospital days averaged 16 with the use of sulfa, 18 without sulfa, 22 with infection and 15 without infection. In the group in which resection of the left colon was done there was a wide variation in the number of days spent in the hospital. In some cases in which a one-stage resection with a cecostomy was done the patient remained in the hospital until the cecostomy was closed, while in other cases the patient went home and returned later for closure of the cecum. There was little difference in the average postoperative hospital stay with or without the use of sulfasuxidine, providing there was no wound infection. This was true also in the group of operations for carcinoma involving the rectum.

CONCLUSIONS

A study of this group of cases from our clinic shows that the incidence of infection and the mortality rate are lower in the cases in which sulfasuxidine therapy was used preoperatively than in those where it was not used.

The average postoperative hospital stay of these patients was affected more by the presence or absence of infection than by the use of sulfa therapy, and the chief value of the sulfa drug in shortening the recovery period appears to be in its lowering the incidence of infection. It must be emphasized that the use of the drug does not replace good surgery or justify the lack of very careful preoperative preparation, meticulous surgical technique and individual postoperative care.

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Controlled Evaluation of Gold Therapy In Rheumatoid Arthritis*

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GOLD compounds have been used extensively during the last ten years in the treatment of rheumatoid arthritis. The results obtained in several thousands of patients have been interpreted to indicate that gold salts are beneficial. The validity of such conclusions is not always apparent from the evidence presented since the criteria for selection of patients and for evaluation of therapeutic results often are indefinitely stated and vary considerably with individual reports. Moreover, adequate time of observation, a prerequisite to the study of a chronic remitting disease, is frequently wanting and follow-up periods cover months rather than years. Of equal or greater importance are satisfactory controls which have generally been lacking in reports on chrysotherapy.

In the present study, we have tried to meet these requirements. We have observed 120 patients with active rheumatoid disease. All of them showed the characteristic general features of this chronic constitutional ailment as well as peripheral symmetrical polyarthritis and elevation of the sedimention rate. All were treated as ambulatory patients although two in each of the series to be described were also hospitalized briefly. All patients were seen by the members of the Arthritis Committee regularly from one to four times each month during the period of critical observation.

Sixty-two such patients, consecutively admitted to the clinic, were given general supportive treatment. This included limitation of activity, dietary regulation, supplemental vitamins, salicylates and intensive physical therapy, the latter under the direction of one of us (F.B.) in the Department of Physical Medicine. These patients had previously had a variety of treatments which we considered non-specific and which did not include gold compounds. The average duration of the illness in these patients prior to admission was 4.36 years, the average duration of treatment and observation in the clinic was 3.02 years. The group of 58 remaining cases was constituted in part (10) by patients unsatisfactorily controlled through supportive therapy, in part (48) by new patients. All were admitted consecutively to chrysotherapy and given general care very similar to that of the first group. The average length of the illness antedating therapy was 5.5 years in this group and the average duration of treatment and observation 2.9 years.

Two soluble gold compounds were used, Gold Sodium Thiosulphate and Gold Sodium Thiomalate. Only those patients were included who received at least 0.5 grams, calculated as gold. The mode of administration was similar to that generally used, but instead of giving one or more courses of injections, we employed continuous treatment. The average maintenance dose was 50 milligrams of the salt given as indicated by the activity of the disease at weekly, bi-weekly or monthly intervals. The average total dose amounted to 1.6 grams in terms of the metal.

According to the results of therapy, we grouped all 120 patients under four headings: arrested, markedly improved, improved, and unimproved. Patients with the first designation lost all evidence of active arthritis, by history, physical examination and laboratory tests. In some, there remained residual deformities and articular damage such as an ankylosed hip joint or a roughened articular surface, previously the sites of active arthritis; but all continued to be free of constitutional and local symptoms of rheumatoid disease. The second group consisted of patients who were restored to good health with the same qualification as to irreversible joint changes in some. However, in these patients we could not with certainty exclude a measure of active disease. In some instances the sedimentation rate failed to become entirely normal, and in some cases with marked articular injury there remained symptoms which might have been caused by continued mild activity of rheumatoid arthritis. The third category comprised patients who were subjectively improved with therapy and showed a reduction in the sedimentation rate. In these patients there was definite evidence of persistent, though less active arthritis. The last group experienced either no improvement or further progression of the disease.

The distribution of patients according to these definitions in the series treated with gold salts and in the control series is given in the following table:

Result	Chrysotherapy Number	Chrysotherapy Per Cent	Controls Number	Controls Per Cent
Arrested	12	20.7	6	9.7
Markedly improved	21	36.2	12	19.4
Improved	14	24.1	17	27.4
Unimproved	11	19	27	43.5
Total	58	100.0	62	100.0

DISCUSSION

We consider that the patients in the first two groups of each series, those who were arrested and markedly improved, showed noteworthy beneficial change under therapy. The combined figures for the two groups are 33, or 56.9 per cent, in the series treated with gold compared with 18, or 29.1 per cent, in the controls. This difference in com-

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parable series is statistically significant and indicates that gold salts are an adjuvant to the treatment of rheumatoid arthritis.

The fate of ten patients who fared poorly on supportive therapy alone and were given gold subsequently seems especially interesting. One of these remained unimproved. Of eight patients who had not been benefited in an average period of 2.75 years, three were improved and five markedly improved after chrysotherapy had been used. In one patient who had experienced some improvement and suffered a recurrence, the disease became arrested. Mild to moderate toxic reactions calling for temporary omission of gold therapy occurred in 29 patients, or 50 per cent. Four more patients were unable to tolerate what we considered an adequate amount of gold, showing signs of severe toxicity, and were therefore eliminated from this series. Of these, one exhibited marked, two some, and one no improvement in their arthritis.

CONCLUSION

Our data show that soluble gold salts are therapeutically effective in peripheral rheumatoid arthritis, since the rate of significant improvement is approximately twice as high in the gold treated series as in the controls. The results closely approximate those obtained by Frazer in a well controlled study.[1] It is also quite evident that chrysotherapy in the form commonly used in rheumatoid arthritis is far from satisfactory, in that it is not applicable to all patients because of severe toxic reactions in some and minor disturbances in about half of those treated, and in that it does not significantly benefit approximately 43 per cent of the subjects. Perhaps of greater importance than the effective therapeutic rate is the establishment of an agent which can influence the course of rheumatoid arthritis, since further studies on its mode of action may increase our understanding of the pathogenesis of this disease.

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Cancer Mortality in San Francisco

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FOR the purposes of this review of cancer mortality in San Francisco, statistical data have been assembled from 1940 through 1945, one full year in the pre-war era, and the remaining five years in the war period when a changing population showed a resultant effect on local factors involved in any analysis of these data.

Since death certificates are the only source of information available on cancer incidence, many items of statistical importance may not be included. However, from such detail as has been tabulated some more or less interesting results have been obtained.

Of first importance, and on the brighter side of the picture, is the apparently declining cancer mortality rate in this period. While to a certain extent this is due to increases in population within the war years, and to the fact that these increases were in the younger age groups where the frequency of cancer is not so great, due credit must be given to the effectiveness of early diagnosis and surgical procedures in the treatment of cancer cases.

MORTALITY RATES

Year	Total	Rate Per 100,000 Population	Rate Adjusted for Residence in California Only†
1940	1,462	230.2	201.6
1941	1,474	232.1	198.6
1942	1,441	198.8	166.3
1943	1,491	192.4	161.7
1944	1,574	203.1	163.0
1945	1,661	200.7	167.0

† Under a reciprocal arrangement with the State Department of Health, an exchange of certificates of non-residents is effected.

In the analysis of age distribution, there is not much to support the often-expressed opinion that cancer is occurring with greater frequency in the younger age groups. While the accompanying tables may indicate a slight trend in this direction, there is not enough evidence to substantiate a positive statement to this effect. Note the cumulative per cents for those groups under 45 years.

At intervals ten years apart, the average age was found and tabulated for male, female, and total groups. Within 20 years, the average age for total cancer deaths increased from 58 to 60 years. Apparently here again has been proven the effectiveness of early diagnosis, the use of radium and other therapeutic agents and operative procedures.

Unfortunately, a statement regarding possible surgery in cancer cases does not always appear on death certificates. From those cases reported, it is safe to say that operations are performed in about 33 per cent of the cases.

AGE DISTRIBUTION

1935

Age	Total	Per Cent Group	Cumulative Per Cent
Under 25	12	1.0	...
25-29	9	0.7	1.7
30-34	19	1.6	3.3
35-44	102	8.5	11.8
45-54	247	20.6	32.4
55-64	347	29.0	61.4
65 and over	462	38.6	100.0
Total	1,198		

1940

Age	Total	Per Cent Group	Cumulative Per Cent
Under 25	11	0.8	...
25-29	9	0.6	1.4
30-34	24	1.6	3.0
35-44	108	7.4	10.4
45-54	276	18.9	29.3
55-64	416	28.4	57.7
65 and over	618	42.3	100.0
Total	1,462		

1945

Age	Total	Per Cent Group	Cumulative Per Cent
Under 25	35	2.1	...
25-29	24	1.4	3.5
30-34	25	1.5	5.0
35-44	130	7.8	12.8
45-54	298	18.0	30.8
55-64	460	27.7	58.5
65 and over	689	41.5	100.0
Total	1,661		

AVERAGE AGE AT DEATH

	Male	Female	Total
1925	57.6	59.0	58.2
1935	60.2	58.3	59.3
1945	60.4	60.4	60.4

Not all communities are prepared in their local hospitals to take adequate care of cancer patients. Perhaps that is the reason so many non-residents avail themselves of services offered in a medical center like San Francisco. Note in the following tabulation that for the past six years an average of nearly one-fourth of the non-resident deaths have been cancer cases.

CANCER MORTALITY—NON-RESIDENTS

Year	Total	Per Cent of Total Non-Resident Deaths	Per Cent of Total Cancer Deaths
1940	294	26	20
1941	279	23	19
1942	266	22	18
1943	269	21	18
1944	342	26	23
1945	321	23	19

Record as to the types of cancer has been omitted in the study of death certificates. However, this information has been given in full detail in the attached morbidity report furnished by the Record Room at San Francisco Hospital. Certain other facts of interest are noted in this report. In the four-year period covered by these tabulations, it is noted that about 4 per cent of the total discharges from the San Francisco Hospital and about 12½ per cent of the deaths occurring there are cancer cases. This is probably as fair an indication of cancer morbidity as is available from any source

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to which the San Francisco Department of Public Health has access. Of the 3,132 tumors found, 939, or 30 per cent, were surgically treated. This compares favorably with the findings on death records regarding operations. Another feature of interest is the stage of development. The large number of primary tumors treated before metastasis occurs is definitely significant of the value of early diagnosis and improved methods of treatment. Surely a more intensive educational program in the community on the dangers of delay is indicated.

It is gratifying to have available for statistical purposes such tabulated data as have been furnished in the accompanying report from the Record Room of San Francisco Hospital.

The following tables have been compiled from the Hospital Disease Index. These data represent the types of new growths diagnosed and their location in the body. During the four-year period tabulated, 3,132 tumors were found in 2,373 patients, indicating the involvement of more than one organ or system of the body in many patients.

Attention is called to the data tabulated on the "endocrine system." Most new growths in this group are diagnosed anatomically as shown by the large number of cases during the period the autopsies have been indexed, 6-30-42 through 10-30-44.

SAN FRANCISCO HOSPITAL

Total Number of Patients Discharged, Number of Deaths and Gross Death Rate with Comparative Data on Tumor Patients Discharged

7-1-42 through 6-30-46

Year	Total Hospital Discharges*	Total Hospital Deaths	Gross Death Rate Per 100 Cases	Total Tumor Patients Discharged	Tumor Deaths	Gross Death Rate Per 100 Cases
7-1-42 to 6-30-43	14,621	1,839	12.6	589	230	39.0
7-1-43 to 6-30-44	13,482	1,672	12.4	489	189	38.6
7-1-44 to 6-30-45	14,850	1,793	12.1	580	236	40.7
7-1-45 to 6-30-46	16,315	1,992	12.2	715	265	37.1
Total	59,268	7,296	12.3	2,373	920	38.8

* Includes Deaths.

Year	Total Number New Growths	Total Deaths	Stage of Development: Primary Only	Primary with Metastasis	Metastatic Only
7-1-42 to 6-30-43	921	482	638	112	171
7-1-43 to 6-30-44	793	455	545	127	121
7-1-44 to 6-30-45	695	342	461	105	129
7-1-45 to 6-30-46	723	280	470	150	103
Total	3,132	1,559	2,114	494	524

SAN FRANCISCO HOSPITAL

New Growths Diagnosed in Patients Discharged from San Francisco Hospital by Location, Sex, Age Groups, Stage of Development, Treatment and End-Results.

7-1-42 through 6-30-46

Year and Site of New Growth	Total All Groups	Male Age Groups: 0-24	25-34	35-44	45-54	55-64	65 & Over	Female Age Groups: 0-25	25-34	35-44	45-54	55-64	65 & Over	Stage of Development: Primary Only	Primary with Metas.	Metastatic Only	Surg. Treated	Results: Died	Recovered
Body as a Whole																			
7-1-42 to 6-30-43*.	76	..	..	7	5	29	10	..	2	2	15	11	12	6	..	70	13	51	25
7-1-43 to 6-30-44*.	51	..	..	2	3	12	9	1	..	3	3	6	12	3	2	46	11	43	8
7-1-44 to 6-30-45*.	54	1	3	4	3	2	9	..	4	2	4	5	17	8	2	44	7	43	11
7-1-45 to 6-30-46..	54	1	..	1	4	3	7	1	1	6	5	12	13	14	1	39	11	31	23
Totals	235	2	3	14	15	29	35	2	7	13	27	34	54	31	5	199	42	168	67
Integumentary System (including subcutaneous areolar tissue, mucous membranes of orifices and the breast).																			
7-1-42 to 6-30-43*.	106	..	1	3	3	6	20	..	2	11	19	16	25	74	30	2	19	45	61
7-1-43 to 6-30-44*.	56	..	..	2	..	1	9	4	1	5	9	6	19	36	18	2	17	14	42
7-1-44 to 6-30-45*.	54	..	..	1	..	2	8	1	3	5	6	8	20	35	18	1	13	21	33
7-1-45 to 6-30-46..	82	2	..	1	4	2	13	2	2	7	7	9	33	49	32	1	27	29	53
Totals	298	2	1	7	7	11	50	7	8	28	41	39	97	194	98	6	76	109	189
Musculoskeletal System																			
7-1-42 to 6-30-43*.	18	2	2	1	4	1	..	..	..	2	2	3	1	5	2	11	4	5	13
7-1-43 to 6-30-44*.	13	..	..	..	..	1	6	..	..	..	2	1	3	5	1	7	2	8	5
7-1-44 to 6-30-45*.	19	1	..	4	..	2	6	..	1	..	1	2	2	8	1	10	5	12	7
7-1-45 to 6-30-46..	14	1	..	..	1	2	3	3	..	1	1	1	1	7	3	4	5	2	12
Totals	64	4	2	5	5	6	15	3	1	3	6	7	7	25	7	32	16	27	37

* New growths diagnosed by autopsy only are included from July, 1942, through October, 1944.

(Continued from Page 298)

New Growths Diagnosed in Patients Discharged from San Francisco Hospital by Location, Sex, Age Groups, Stage of Development, Treatment and End-Results.

7-1-42 through 6-30-46

Year and Site of New Growth	Total All Groups	Male Age Groups						Female Age Groups						Stage of Development				Results	
		0-24	25-34	35-44	45-54	55-64	65 & Over	0-25	25-34	35-44	45-54	55-64	65 & Over	Primary Only	Primary with Metas.	Metastatic Only	Surg. Treated	Died	Recovered
Respiratory System																			
7-1-42 to 6-30-43*.	88	1	2	14	21	23	14	2	..	..	2	3	6	50	27	11	25	49	39
7-1-43 to 6-30-44*.	78	..	..	2	21	22	23	2	1	1	1	3	2	49	14	15	25	54	24
7-1-44 to 6-30-45*.	88	2	1	9	7	16	23	..	1	1	5	6	17	47	19	22	17	53	35
7-1-45 to 6-30-46..	62	..	..	8	8	20	11	1	2	3	3	1	5	42	13	7	21	39	23
Totals	316	3	3	33	57	81	71	5	4	5	11	13	30	188	73	55	88	195	121
Cardiovascular System																			
7-1-42 to 6-30-43*.	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1	..
7-1-43 to 6-30-44*.	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	1	..
7-1-44 to 6-30-45*.	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	1	..
7-1-45 to 6-30-46..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	3	..	..	..	..	1	1	..	1	..	..	..	..	..	..	3	..	3	..
Hemic & Lymphatic Systems																			
7-1-42 to 6-30-43*.	35	..	..	1	3	4	14	..	1	1	3	2	6	17	1	17	11	20	15
7-1-43 to 6-30-44*.	18	1	..	1	5	1	4	..	..	..	..	..	6	10	..	8	5	9	9
7-1-44 to 6-30-45*.	18	1	..	1	2	2	2	..	2	1	1	3	3	10	1	7	4	9	9
7-1-45 to 6-30-46..	18	..	..	1	..	5	4	..	..	..	2	1	5	3	..	15	9	4	14
Totals	89	2	..	1	10	12	24	..	3	2	6	6	20	40	2	47	29	42	47
Digestive System																			
7-1-42 to 6-30-43*.	212	3	2	8	23	32	68	1	2	1	17	18	37	155	28	29	69	131	181
7-1-43 to 6-30-44*.	247	..	4	10	20	49	106	..	2	1	9	10	36	165	59	23	65	170	77
7-1-44 to 6-30-45*.	187	2	1	7	20	34	61	1	2	2	13	13	31	121	46	20	57	103	84
7-1-45 to 6-30-46..	206	..	..	9	19	55	61	2	1	2	8	21	28	127	61	18	57	96	110
Totals	852	5	7	34	82	170	296	4	7	6	47	62	132	568	194	90	248	500	352
Urogenital System																			
7-1-42 to 6-30-43*.	297	..	..	3	3	15	81	6	31	51	36	30	41	260	21	16	110	114	183
7-1-43 to 6-30-44*.	248	..	..	3	6	15	63	6	29	38	32	21	35	212	32	4	101	100	148
7-1-44 to 6-30-45*.	209	1	1	3	1	11	48	7	23	44	22	13	35	185	18	6	90	58	151
7-1-45 to 6-30-46..	240	..	1	4	4	15	53	10	39	32	34	16	32	205	30	5	91	63	177
Totals	994	1	2	13	14	56	245	29	122	165	124	80	143	862	101	31	392	335	659
Endocrine System																			
7-1-42 to 6-30-43*.	50	..	..	3	3	9	12	..	..	2	8	2	11	50	..	..	6	45	5
7-1-43 to 6-30-44*.	45	..	1	3	2	5	16	1	1	3	4	3	6	42	1	2	4	38	7
7-1-44 to 6-30-45*.	23	..	..	..	2	4	7	..	1	2	3	..	4	20	..	3	3	19	4
7-1-45 to 6-30-46..	5	..	..	..	..	1	1	1	..	1	1	..	..	5	..	..	1	..	5
Totals	123	..	1	6	7	19	36	2	2	8	16	5	21	117	1	5	14	102	21
Nervous System																			
7-1-42 to 6-30-43*.	20	1	1	4	6	1	..	..	..	5	1	..	1	17	3	..	7	13	7
7-1-43 to 6-30-44*.	24	1	3	2	3	3	1	..	2	2	3	2	2	20	..	4	6	12	12
7-1-44 to 6-30-45*.	28	1	..	5	3	2	2	1	1	1	8	4	..	25	..	3	6	17	11
7-1-45 to 6-30-46..	26	3	..	4	1	3	2	1	5	2	1	..	4	16	9	1	6	13	13
Totals	98	6	4	15	13	9	5	2	8	10	13	6	7	78	12	8	25	55	43
Organs of Special Senses																			
7-1-42 to 6-30-43*.	4	..	..	..	..	2	..	..	..	1	..	..	1	4	..	..	1	..	4
7-1-43 to 6-30-44*.	3	..	1	..	1	..	1	..	..	..	..	..	..	3	..	..	3	..	3
7-1-44 to 6-30-45*.	4	..	..	..	..	1	1	..	..	..	..	..	2	2	..	2	2	1	3
7-1-45 to 6-30-46..	7	..	..	1	..	2	2	..	..	..	2	..	..	2	1	4	3	..	7
Totals	18	..	1	1	1	5	4	..	..	1	2	..	3	11	1	6	9	1	17
Unknown Primary Site, Type Undiagnosed																			
7-1-42 to 6-30-43*.	14	..	..	..	..	6	4	..	..	..	1	..	3	..	..	14	..	8	6
7-1-43 to 6-30-44*.	9	..	..	..	1	..	3	..	..	1	1	..	3	..	..	9	..	6	3
7-1-44 to 6-30-45*.	10	..	..	..	1	2	3	1	..	..	1	1	1	..	..	10	..	5	5
7-1-45 to 6-30-46..	9	..	..	..	..	2	4	..	..	..	..	2	1	..	..	9	..	3	6
Totals	42	..	..	..	2	10	14	1	..	1	3	3	8	..	..	42	..	22	20

* New growths diagnosed by autopsy only are included from July, 1942, through October, 1944.

SAN FRANCISCO HOSPITAL

Type of New Growth by Year and Site, Sex, Stage of Development and End-Results.

7-1-42 through 6-30-46

Year and Site of New Growth	Total	Sex: Male	Sex: Female	Type of New Growth (See Key at End of Table): A	B	C	D	E	F	G	H	Stage of Development: Primary Only	Primary with Metas.	Metastatic Only	Results: Died	Recovered
Body as a Whole**																
7-1-42 to 6-30-43*	76	34	42	4	..	..	67	1	1	2	1	6	..	70	51	25
7-1-43 to 6-30-44*	51	26	25	5	..	..	45	..	..	1	..	3	2	46	43	8
7-1-44 to 6-30-45*	54	22	32	9	..	1	39	..	..	4	1	8	2	44	43	11
7-1-45 to 6-30-46	54	16	38	15	5	..	30	..	..	4	..	14	1	39	31	23
Total	235	98	137	33	5	1	181	1	1	11	2	31	5	199	168	67
Integumentary System (including subcutaneous areolar tissue, mucous membranes of orifices and the breast)																
7-1-42 to 6-30-43*	106	33	73	15	..	..	86	3	..	2	..	74	30	2	45	61
7-1-43 to 6-30-44*	56	12	44	8	..	..	44	4	..	..	..	36	18	2	14	42
7-1-44 to 6-30-45*	54	11	43	7	..	..	47	..	..	..	..	35	18	1	21	33
7-1-45 to 6-30-46	82	22	60	7	..	..	70	1	..	3	1	49	32	1	29	53
Total	298	78	220	37	..	..	247	8	..	5	1	194	98	6	109	189
Musculoskeletal System																
7-1-42 to 6-30-43*	18	10	8	6	..	..	11	..	..	1	..	5	2	11	5	13
7-1-43 to 6-30-44*	13	7	6	4	..	..	9	..	..	..	..	5	1	7	8	5
7-1-44 to 6-30-45*	19	13	6	8	..	..	11	..	..	..	..	8	1	10	12	7
7-1-45 to 6-30-46	14	7	7	7	..	2	4	..	..	1	..	7	3	4	2	12
Total	64	37	27	25	..	2	35	..	..	2	..	25	7	32	27	37
Respiratory System																
7-1-42 to 6-30-43*	88	75	13	4	1	..	81	..	..	2	..	50	27	11	49	39
7-1-43 to 6-30-44*	78	68	10	4	..	..	73	..	..	1	..	49	14	15	54	24
7-1-44 to 6-30-45*	88	58	30	5	..	..	82	..	..	1	..	47	19	22	53	35
7-1-45 to 6-30-46	62	47	15	2	..	..	59	..	..	1	..	42	13	7	39	23
Total	316	248	68	15	1	..	295	..	..	5	..	188	73	55	195	121
Cardiovascular System																
7-1-42 to 6-30-43*	1	1	..	1	..	..	..	..	..	..	..	..	..	1	1	..
7-1-43 to 6-30-44*	1	..	1	..	..	..	1	..	..	..	..	..	..	1	1	..
7-1-44 to 6-30-45*	1	1	..	..	..	..	1	..	..	..	..	..	..	1	1	..
7-1-45 to 6-30-46	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total	3	2	1	1	..	..	2	..	..	..	..	..	..	3	3	..
Hemic & Lymphatic Systems																
7-1-42 to 6-30-43*	35	22	13	16	..	..	19	..	..	..	..	17	1	17	20	15
7-1-43 to 6-30-44*	18	12	6	10	..	..	7	..	..	1	..	10	..	8	9	9
7-1-44 to 6-30-45*	18	8	10	11	..	..	7	..	..	..	..	10	1	7	9	9
7-1-45 to 6-30-46	18	10	8	3	..	..	15	..	..	..	..	3	..	15	4	14
Total	89	52	37	40	..	..	38	..	..	1	..	40	2	47	42	47
Digestive System																
7-1-42 to 6-30-43*	212	136	76	13	..	..	185	..	1	9	4	155	28	29	131	181
7-1-43 to 6-30-44*	247	189	58	12	..	..	226	..	..	8	1	165	59	23	170	77
7-1-44 to 6-30-45*	187	125	62	4	..	..	176	1	..	6	..	121	46	20	103	84
7-1-45 to 6-30-46	206	144	62	4	..	..	197	2	..	3	..	127	61	18	96	110
Total	852	594	258	33	..	..	784	3	1	26	5	568	194	90	500	352
Urogenital System																
7-1-42 to 6-30-43*	297	102	195	80	..	2	205	5	4	..	1	260	21	16	114	183
7-1-43 to 6-30-44*	248	87	161	86	1	..	154	2	2	1	2	212	32	4	100	148
7-1-44 to 6-30-45*	209	65	144	68	..	4	124	..	4	2	7	185	18	6	58	151
7-1-45 to 6-30-46	240	77	163	66	..	3	152	6	8	1	4	205	30	5	63	177
Total	994	331	663	300	1	9	635	13	18	4	14	862	101	31	335	659
Endocrine System																
7-1-42 to 6-30-43*	50	27	23	..	..	..	50	..	..	..	..	50	..	..	45	5
7-1-43 to 6-30-44*	45	27	18	..	..	..	45	..	..	..	..	42	1	2	38	7
7-1-44 to 6-30-45*	23	13	10	1	..	..	22	..	..	..	..	20	..	3	19	4
7-1-45 to 6-30-46	5	2	3	..	..	..	5	..	..	..	..	5	..	..	..	5
Total	123	69	54	1	..	..	122	..	..	..	..	117	1	5	102	21
Nervous System																
7-1-42 to 6-30-43*	20	13	7	13	..	..	3	..	..	4	..	17	3	..	13	7
7-1-43 to 6-30-44*	24	13	11	13	..	..	4	..	..	7	..	20	..	4	12	12
7-1-44 to 6-30-45*	28	13	15	10	..	..	5	1	..	12	..	25	..	3	17	11
7-1-45 to 6-30-46	26	13	13	14	..	..	2	..	1	8	1	16	9	1	13	13
Total	98	52	46	50	..	..	14	1	1	31	1	78	12	8	55	43

* New growths diagnosed by autopsy only are included from July, 1942, through October, 1944.

** Includes generalized carcinomatosis and new growths with metastases to more than three body organs.

(Table Continued on Next Page)

Type of New Growth by Year and Site, Sex, Stage of Development and End-Results.

7-1-42 through 6-30-46

Year and Site of New Growth	Total	Sex		Type of New Growth (See Key at End of Table)								Stage of Development			Results	
		Male	Female	A	B	C	D	E	F	G	H	Primary Only	Primary with Metas.	Metastatic Only	Died	Recovered
Organs of Special Senses																
7-1-42 to 6-30-43*...	4	2	2	..	..	..	4	..	..	..	..	4	..	..	..	4
7-1-43 to 6-30-44*...	3	3	..	..	..	..	2	..	..	..	1	3	..	..	..	3
7-1-44 to 6-30-45*...	4	2	2	..	..	..	4	..	..	..	..	2	..	2	1	3
7-1-45 to 6-30-46....	7	5	2	2	..	..	5	..	..	..	..	2	1	4	..	7
Total.....	18	12	6	2	..	..	15	..	..	..	1	11	1	6	1	17
Unknown Primary Site, Type Undiagnosed																
7-1-42 to 6-30-43*...	14	10	4	..	..	..	2	..	..	12	..	..	..	14	8	6
7-1-43 to 6-30-44*...	9	4	5	..	..	..	4	..	..	4	..	..	..	9	6	3
7-1-44 to 6-30-45*...	10	6	4	..	..	..	2	..	..	8	..	..	..	10	5	5
7-1-45 to 6-30-46....	9	6	3	..	..	..	7	..	..	2	..	..	..	9	3	6
Total.....	42	26	16	..	..	..	15	..	..	26	..	..	..	42	22	20

* New growths diagnosed by autopsy only are included from July, 1942, through October, 1944.

Key: A Nonepithelial neoplasms.
B Neoplasm derived from a serous surface, a joint cavity or a lymph node.
C Neoplasms arising from fetal anlage of an organ (including neoplasm arising from an aberrant anlage).
D Epithelial neoplasms.
E Combined epithelial and nonepithelial neoplasms; mixed neoplasms.
F Teratoma.
G Unclassified neoplasms.
H Hyperplasias of neoplastic significance.

Acute Hematogenous Osteomyelitis Treated With Penicillin— A Case Report

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THE following case of acute hematogenous osteomyelitis is reported because of the extremely interesting x-ray films, showing the results of a new method of treatment of an old disease.

The patient a girl 27 months of age, was admitted to the Pediatric Service, Vallejo Community Hospital, June 16, 1945, because of pain and swelling in the left leg. She had been running an elevated temperature (up to 40°C.) for three days and was quite ill. There was tenderness in the right knee and lower leg, with swelling about the knee and upper tibia. The general physical examination disclosed nothing beyond normal limits except for chronically infected tonsils. The WBC was 29,500 with a differential of PMN 74 per cent. X-ray films, taken June 22, 1945, were negative for bone changes (Figure 1). The patient was given penicillin under the tentative diagnosis of thrombophlebitis, left saphenous vein. She received 12 days' treatment of 60,000 units per day divided into six doses per day.

She was first seen by one of the writers on June 23, 1945, at which time there was swelling on the mesial side of the upper tibia and in the knee joint, with definite bone tenderness over the upper tibia. There was marked redness and increase in local temperature but no localized area of inflammation. Some enlargement of the inguinal lymph nodes was noted. The leg was immobilized in plaster, and marked improvement followed. The patient was discharged and returned home June 28, 1945, with her leg still in the cast.



Figure 1.



Figure 2.

The fever recurred, and the patient was readmitted July 13, 1945. On removal of the cast it was found that there was some bone tenderness. The swelling had subsided, but some induration of the upper tibia was present. There was no fluctuation or localization. Another x-ray film was taken (Figure 2). The second writer saw her for the first time on this admission and the diagnosis of acute hematogenous osteomyelitis of the right tibia was established. Again the leg was immobilized and penicillin therapy was instituted with administration of 160,000 units a day, divided into eight doses daily, and continued for a period of 14 days.

On July 25, 1945, the cast was removed to permit examination. The writers anticipated an abscess and sequestration, with drainage. They found, however, that pain in the leg at this time was diminished or absent, and that induration also had diminished. The patient was discharged and re-



Figure 3.

turned home with her leg in a cast on July 27, 1945, symptom free.

Another x-ray film was taken through the cast on August 23, 1945 (Figure 3), and the patient still was symptom free.



Figure 4.



Figure 5.

Although an abscess still was anticipated, when the cast was removed on September 6, 1945, all clinical signs were normal except for questionable induration. X-ray films showed the bones to be healing (Figure 4), and immobilization was discarded. The patient regained normal function and was free of symptoms. On October 1, 1945, another x-ray film was taken (Figure 5).

Her past history revealed an admission to the hospital in January, 1945, for a severe tonsillitis. It was the opinion of the writers that the tonsils were the focus of infection. No other focus was found and an adeno-tonsillectomy was arranged for November, 1945.

Unfortunately, the bacterial etiology was never established, but with that exception it is felt the diagnosis is accurately established. Feeling that the recovery* from acute hematogenous osteomyelitis without surgery is quite remarkable, the writers believe that large doses of penicillin are indicated in the acute stage and for a longer period. In the acute stage a minimum of 21 days of penicillin administration is suggested. No untoward effects of penicillin were noted.†

Cultures of the patient's tonsils on nutrient broth and blood agar showed non-hemolytic streptococcus; non-hemolytic staphylococcus and pseudomonas pyocyaneus.

* As of August 15, 1946, there had been no recurrence of symptoms or clinical findings of osteomyelitis in the left tibia.

† The only untoward effect of penicillin noted in a large personal series of military cases was urticaria which was easily controlled by stopping the drug, and routine measures.

The Pulse in Ancient Chinese Medicine

Albert Fields, M.D., *Los Angeles*

MOST of the diagnostic techniques and therapeutic procedures of the practitioners of ancient Chinese medicine are beyond the comprehension and analysis of scientific western medicine. Some of these techniques are worthy of attention. They have been employed for centuries and are still used by many thousands of "physicians," often with good results. Furthermore, they are interesting because of the weird anatomical and physiological theories behind them. At least they were of interest to American physicians such as myself who spent some time during the war years working with the Chinese.

In his examination of the patient, the Chinese physician devotes himself almost wholly to the appearance of the tongue, lips and face, and to the character of the pulse. The value that the Chinese place on the interpretation of the pulse is implied in the proverb:

> He who revives man's life
> With three fingers (on the pulse)
> Is not a good statesman
> But a good doctor.

Pulse and circulation were studied in China at least two thousand years ago. The first known mention was in the Internal Medicine Classic, *Nei Ching*. This manuscript is said to have been written by the Yellow Emperor, Huang Ti (B.C. 2698-2598), with the aid of the wise physician Ch'i Pai. Hence doctors are sometimes spoken of as practitioners of the art of Ch'i and Huang. Recent researches indicate that this manuscript may have been written about the end of the Chou dynasty, B.C. 249. The first well-known exponent of the pulse was Pien Ch'iao (fifth century B.C.). The greatest of ancient Chinese surgeons, Hua To (A.D. 115-205) studied the pulse and described 200 varieties. Wang Shu-Ho (Chin dynasty, A.D. 280) was the greatest ancient authority on the pulse. He wrote the ten-volume Pulse Classic which is still widely used today. Another book, *The Secret of the Pulse*, which appeared about the period of The Five Dynasties (A.D. 907-960), is also ascribed to Wang Shu-Ho. It was probably written by another physician, Kao Yang-sheng.

In examining the pulse, the examiner uses the three middle fingers of his right hand. The thumb is placed on the dorsum of the wrist and the three fingers are placed on the wrist over the radial artery about half an inch apart. The fingers are used somewhat as if striking the keys of a piano. "The best time for taking the pulse is in the early morning at sunrise. The physician should keep cool and collected, first noting if his own breathing is in order . . . The normal ratio is four pulse beats to one respiration."

In females, the examiner feels first the right hand and then the left; in males, the left hand is first. I was unable to discover the reason for this routine. Children under five years of age are not examined by the pulse, but have their fingers inspected.

It is of interest that perhaps the Chinese did appreciate the connection of the heart with circulation more than a thousand years before Harvey. In the previously mentioned *Nei Ching* it is written, "The heart regulates all the blood in the body . . . The blood flows in a circle and never stops." The Chinese have a theory of double circulation by which the "spirits," which are the vehicle of the Yin principle (male, heat) and the blood which conveys the Yang principle (female, moisture), are distributed through the body. The circulation begins in the lungs at three o'clock in the morning (the Hour of the Tiger) and completes the rounds in 24 hours. For the accommodation of this circulation, the Chinese practitioners count 12 principal canals—six pass from above downward and six from below upward. There are also accessory canals, eight of which run transversely and nine obliquely.[1]

LITTLE KNOWLEDGE OF INTERNAL ANATOMY

Generally speaking, the knowledge of the present-day practitioners of ancient Chinese medicine is in the same category as that of western physicians prior to Vesalius. Chinese tradition is opposed to the disfigurement of the body before or after death. Internal operations were rarely performed; there were no autopsies. Accidental battle wounds were probably their only sources of anatomical knowledge. So far as I was able to ascertain, there was little attempt to apply animal anatomy to humans. Their "science" is based largely on tradition and empiricism, rather than on investigations. The heart along with the spleen is believed to be the seat of the emotions.

They considered each half of the human body as divided into three regions which are associated with different positions along the radial arteries. The status of the organs in these various regions can thus be determined from the character of the corresponding pulse:

Finger	Name of Position	Organ	
Ring	Ts'un (spring)	Right—Lungs, stomach, spleen	Left—Heart, liver, gallbladder
Long	Quan (gate)		
Index	Ch'ih (foot)	Small intestines	Large intestines, kidney, bladder

There are eight main types of pulse: Fou ("floating"), Ch'en (sinking), Ch'ih (slow), Shu (quick), Si (small), Ta (big), Tan (short), Chang (long). Each of these types and subdivisions will be briefly discussed (after Lui[2]):

1. Fou (floating pulse). It "floats" to the surface of the skin. When the fingers are put on the wrist, it is easily felt. This pulse indicates sickness in the outer system, a head cold. The Chinese theory is that such a cold should be broken up by making the patient perspire.

The "Fou" pulse has six branches:

(a) Hung (deluge)—"floats" very strongly; indicates inflammation and fever. On the right wrist, at the place called Ts'un, such pulse shows inflammation of the lungs.

(b) Hsu (weak)—float is weak; shows low vitality and that the respiratory system is in danger.

(c) San (disperse)—float is scattering; shows serious weakness. If this pulse is on Ch'ih of the left hand, the weakness is in the kidneys and bladder.

(d) K'ung (hole)—floats and feels "like the stock of a green onion"; indicates an anemic condition.

(e) Ko (outer-skin)—floats by a touch "like that of the surface of a leather drum." It shows an unbalanced system: outer body, strong; inner, weak.

(f) Jo (feeble) is floating and soft; indicates rheumatism.

2. Ch'en (sinking pulse) sinks to the bottom; indicates illness "hidden deep in the diseased organ." It has three branches:

(a) Lao (prison). Sinks to a bottom, with the sensation of solid ground; it shows a very weak and very cool system.

(b) Fu (prostrate). Sinks to the bone and has a feeling hardly sensed by the fingers even by hard down pressure. Shows evil and nervous condition.

(c) Jo (infirm). Sinks and beats softly; shows a loss of energy.

3. Ch'ih (slow pulse). This beats slowly, less than three beats to one respiration; indicates a weak system and a "cold condition of blood." This pulse has four branches:

(a) Huan (harmony). Pulse is slow and even. It is normal. The beat is four times to one respiration.

(b) Se (stagnant). Pulse slow and stagnant. Shows anemic condition.

(c) Chi (indigest). Slow; sudden stop; beats again and again. It indicates a congestion, indigestion. or hypochondriac condition.

(d) Tai (replace). Slow and stopping pulse, repeating in exactly the same time; shows life in a dangerous condition.

4. Shu (quick pulse). The beat is rapid, generally more than five times to one respiration. When the beat reaches seven to eight times to one respiration, the patient is in a crisis. Fever is indicated by rapid pulse. There are four different branches:

(a) Wat (slipping). Pulse is quick and slipping; phlegmatic condition.

(b) Chin (tight). Quick, and tied as if tugging; indicates a "cold system," sometimes means an inflamed condition.

(c) Tsu (working). This pulse is quick, stops suddenly, beats quickly again, and continues in that way. The irregularity shows extreme fever.

5. Si (small pulse). This is very tiny, feeble to the touch. It shows a "kidney insufficiency in semen."

6. Ta (big pulse). This has a big beat; it feels like something large: shows a strong system, stopped or sluggish.

7. Dan (short). The beats feels very short; usually indicate that the respiratory system is in a weak condition.

8. Chang (long pulse). This pulse beats so long that it seems like a thread; generally indicates a strong constitution.

In addition to the eight pulses there are some peculiar pulses which show an exhausted condition of the organs. In a weak condition of the heart, the pulse is not active; of the liver, it beats like a bird pecks—again and again; of the stomach, beats as a loose knot; of the lungs, beats like a foam on the top of water; of the kidneys, beats like a large stone in the bottom of the water and which cannot be moved.

The normal pulse for the various organs: Hung for the heart; Yen (beats as an arrow shoots) for the liver; Huan for the stomach; Se for the lungs; Ch'en for the kidneys. These have been "described" above.

DISCUSSION

It is quite possible that some ancient Chinese did appreciate the relationship between the heart and the circulation of the blood. However, there is no anatomical or physiological basis to the ancient Chinese concept of the pulse. We are aware of pulse variations and the suggestive types of pulse in a few diseases, but cannot appreciate the relationship between the character of the pulse and the state of certain organs. The statement of the Chinese that foreign fingers are not sufficiently sensitive to detect fine pulse differences does not seem reasonable.

One thing is difficult to understand. These practitioners of ancient Chinese medicine have not had a formal education and have never seen an autopsy, test tube or microscope. Yet, like many others who have seen them examine patients, I have repeatedly been amazed at their almost uncanny ability to determine the seat of disease from the pulse alone.

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MEDICAL PROGRESS:

Progress in the Management of Syphilis

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SINCE the discovery in 1943 that penicillin was an effective therapeutic agent in syphilis, treatment methods of the disease have been completely revolutionized. Syphilotherapy is in a state of great influx. It will take several years and much cooperative experience and study to learn how best to utilize penicillin in treating syphilis. This discussion is an attempt to present some of the fundamentals related to the use of penicillin in the successful management of the syphilis patient.

DIAGNOSIS

The accurate diagnosis of syphilis is not always easy. Preferably it should not be based solely upon one or two serologic tests for syphilis. Many mistakes in diagnosis have been made because of the occurrence of non-specific positive serologic tests. A diagnosis of latent syphilis needs not be made in haste. The condition is not a medical emergency although many physicians are inclined to look upon the positive blood test as a signal for the immediate institution of treatment.

Shaffer[11] states that non-specific positive serologic tests for syphilis were considered rare in the past except in a few diseases such as yaws, leprosy, and malaria. Recent experience is emphasizing the fact that such non-specific reactions are numerous, particularly with precipitation or flocculation tests (Kahn, Kline, Eagle, Mazzini). Some of the more recent additions to the list of conditions which may cause false positive tests are many febrile and toxic states, vaccinations, serums, virus pharyngitis and bronchitis, atypical pneumonia, infectious mononucleosis, undulant fever, chancroid and lymphogranuloma venereum. Certain individuals are carriers of non-specific reactions, usually of low or fluctuating titer, which may persist seemingly throughout life. A generally accepted method of differentiation between non-specific and specific reactions by any one serologic procedure is not available at present. Verification tests are inconclusive. Davis[4] states that any febrile disease occurring within three months preceding the test may be suspected as the cause of a false positive reaction. Transient false positive tests may appear in the absence of demonstrable disease of any kind and in some cases may persist for a long time. The quantitative S.T.S.* is an aid in differentiating non-specific tests. Most false positive blood tests are either of short duration (days to several weeks) or of low titer when quantitative serologic tests are performed. False positive tests of high titer will usually decrease materially over a period of several days. Most false positive tests can be revealed by serial quantitative serologic examination carried out over a period of several days to a few weeks.

Just as a positive serologic test without the presence of other clinical manifestations of the disease is a challenge to rule out syphilis, the opposite is true when lesions are present. Genital lesions which offer the faintest possibility of being syphilitic should be considered so until proven otherwise. In lesions which are negative to darkfield examination, the patient may have seronegative primary syphilis even though repeated darkfield tests are negative. In most cases good technique and persistence in repeating darkfield studies will result in the discovery of the spirochete. Obtaining material for darkfield study from regional lymph nodes (the satellite bubo) will frequently result in success where it is impossible to obtain organisms from the primary lesion.

At times one may be confronted with a persistently darkfield negative primary lesion in the presence of a positive blood test. The question arises as to whether this is a case of primary seropositive syphilis or one of latent syphilis complicated by a genital lesion of different etiology such as chancroid or lymphogranuloma venereum. Quantitative serologic tests for syphilis are often a great aid in solving such a problem. According to Heyman,[5] if it is a case of primary syphilis the quantitative titer will rise in a few days, whereas the titer will remain stationary if it is a case of latent syphilis with a genital lesion due to another disease. If the titer falls, the lesion may be due to chancroid or lymphogranuloma venereum which has caused a false positive serologic test. Other conditions in which the quantitative S.T.S. frequently leads to the correct conclusion are as follows:

1. Relapsing syphilis: A progressive rise in titer indicates a relapse. Serologic relapse usually precedes mucocutaneous relapse by approximately one month and often these lesions are so minimal as to go unnoticed. The diagnosis of serologic relapse should not be made unless there is a significant rise in titer which persists upon recheck one to two weeks later.

2. Congenital syphilis of the newborn: In weekly quantitative studies on the infant the titer will rise progressively or remain high if the child is infected. A child may be born with a positive blood test and not be actually infected. This is merely a reflection of the mother's serologic reaction and the titer falls rapidly.

3. Prozone phenomenon: In a few very strongly positive serums, negative reactions will occur in whole serum: however, a positive serologic test will result when the serum is diluted for quantitative study.

Quantitative serologic tests are obtained by per

* Abbreviation for Serologic Test for Syphilis.

forming tests on serial dilutions of the whole serum, preferably diluting the serum to the point where a positive reaction is no longer obtained. If, for example, a given serum is positive down to a dilution of 1:50 the serologic titer is 50. In the Kahn test this figure may be multiplied by four to obtain the Kahn units (a Kahn titer of 50 indicates 200 Kahn units).

Congenital Syphilis:

In making a diagnosis of congenital syphilis in the newborn without physical evidence of infection, a quantitative blood test should be obtained at birth and every week or two weeks until a positive diagnosis is made or the disease ruled out. In the non-syphilitic infant born with a positive S.T.S. the titer will usually fall to less than 10 Kahn units in two to three weeks and to negativity by eight weeks. In an occasional case a low titer may be maintained for as long as twelve to fourteen weeks. A final serologic test to completely rule out syphilis is indicated at the age of six months. In a child infected with syphilis, an initial high titer will be maintained and at the end of four weeks treatment should be instituted even though there are no other clinical signs of syphilis. Therapy is also indicated in a case of low titer at birth which progressively rises in weekly tests up to the age of one month. Where quantitative serologic tests are not available it is best to treat the child if strongly positive tests are obtained beyond the sixth or eighth week of life. Roentgenograms of the long bones are often helpful. Approximately 90 per cent of untreated syphilitic infants will show evidence of osteochondritis or periostitis in roentgenograms at the age of six to eight weeks.

Asymptomatic Neurosyphilis:

The diagnosis of asymptomatic neurosyphilis is based solely upon examination of the cerebrospinal fluid. All patients upon whom a diagnosis of latent syphilis is made should have a spinal fluid examination at once, as one may not be actually dealing with latent syphilis but with asymptomatic neurosyphilis. It is also advisable to obtain spinal fluid studies early in cases of primary or secondary syphilis, in order to know whether or not the neuraxis has been invaded. Moore and Mohr[7] studied 48 patients with early asymptomatic neurosyphilis and 36 of these cases were still in the primary or secondary stage of syphilis. The cerebrospinal fluid findings in neurosyphilis are classified as follows:

Group I (Minimal changes). The cell count is elevated to 7 or more and/or the protein to 37 mgm. per cent or more. The complement fixation and collodial tests are negative.

Group II (Moderate changes). Cell count and protein are normal or abnormal to any degree. Complement fixation test is positive with relative large amounts of fluid (0.2 cc. to 1.0 cc.). Colloidal curves of any type.

Group III (Maximal changes). Cell count and protein usually elevated. Complement fixation test positive with small amounts of fluid (0.1 cc. or less). Collodial curves usually first zone (paretic) type.

TREATMENT

Penicillin is the most important therapeutic agent in the treatment of syphilis today. As commercially distributed, it is not a single substance but a mixture of several. At least four different penicillin species, which differ chemically in the side chains attached to the basic nuclear structure, have been identified. These are known as penicillins G, X, F and K.[14]

Studies to determine the Treponemicidal effect of these four penicillin fractions indicate that G is the most effective of the fractions so far studied and available. On the basis of present information, it is of utmost importance that a commercial penicillin of high G content, or the crystalline penicillin G itself, be employed in the treatment of syphilis.

Early Syphilis:

Cooperative studies indicate that the minimum dose of penicillin for seronegative primary syphilis be not less than 3.6 million units (60 injections of 60,000 units each given every 3 hours). The recommended minimum dose for seropositive primary syphilis, secondary syphilis, and early latent syphilis of less than two years' duration is not less than 5.4 million units (90 injections of 60,000 units or 60 injections of 90,000 units each.)

If reinfection, infectious or serologic relapse of previously treated early syphilis occurs, the above course should be repeated plus the addition of 360 mg. of oxophenarsine hydrochloride (mapharsen) or an analogue given two to three times weekly in six individual injections of 60 mg. each, plus bismuth subsalicylate given twice weekly in six individual intramuscular injections of 0.2 gm. each.

For a second relapse of early syphilis after previous penicillin treatment, the patient should be placed on metal chemotherapy with arsenic and bismuth, preferably by the 26-week schedule employed by the Army and Navy. (Forty intravenous injections of mapharsen and 16 injections of bismuth subsalicylate.)

The ambulatory treatment of early syphilis utilizing a single daily intramuscular injection of the absorption-delaying calcium penicillin in peanut oil-beeswax is of great economic advantage in that hospitalization of the patient is not required. If calcium penicillin in peanut oil-beeswax is used the recommended average daily dose for an adult is 600,000 units. For early syphilis, a minimum total dose of 4.8 to 6 million units of this preparation is advised.

Latent Syphilis:

Latent syphilis is that stage of syphilitic infection in which the patient presents no physical signs or symptoms of the disease, the spinal fluid has been demonstrated to be normal and a positive serologic test for syphilis is the only indication of infection. Syphilis may be considered late latent when it is of more than two years' duration.

Moore[9] states that the only present rationale for the use of penicillin in previously untreated latent

syphilis is its known effect in patients with early or late active syphilitic disease. Presumably if penicillin will actually "cure" early syphilis, it should be of preventive value in latent syphilis.

The treatment may be given with a minimum of 4 million units of penicillin in aqueous solution (80 injections of 50,000 units every three hours for ten days) or 6 million units of sodium penicillin in peanut oil-beeswax (10 daily injections of 600,000 units each).

It is to be realized that seroresistance is the rule, not the exception, in latent syphilis and that there is no evidence as yet that penicillin is more effective than any other form of treatment in reducing the serologic test for syphilis to negative in these cases.

Syphilis in Pregnancy:

The use of penicillin for the treatment of syphilis in pregnancy has proven to be incomparably superior to metal chemotherapy. The reported treatment results are most favorable no matter what the duration of pregnancy at the time of treatment. Cole et al.[2] report successful results in mother and infant although treatment was not instituted until the last month of pregnancy. The dosage schedules of penicillin are still in the formative stage and require further study, but it is generally agreed that the total dose of commercial penicillin should not be less than 3.6 to 5.4 million units administered over a period of not less than seven and one-half days. Following completion of treatment, monthly clinical examinations and titered serologic tests until delivery are essential. The quantitatively titered serologic test for syphilis is particularly necessary in the proper management of the syphilitic prospective mother and her child.

Re-treatment during pregnancy with penicillin is indicated if there is any evidence of a clinical or serologic relapse or if there is no significant decline in the serologic titer within three months after treatment.

Early Congenital Syphilis:

When the diagnosis of syphilis in the new-born is concluded, immediate treatment is indicated. At present, a total dosage of at least 100,000 to 125,000 units of penicillin per kilogram of body weight, administered every three hours over a period of not less than 12 to 15 days, is considered a satisfactory regime of treatment.

Neurosyphilis:

At present it appears quite certain that, in all types of neurosyphilis, penicillin is superior to any form of metal chemotherapy. The improvement in the serologic reactions of the spinal fluid in neurosyphilis is the outstanding benefit that follows penicillin therapy.

Evidence to date indicates that penicillin alone in a total dosage of 8 to 10 million units administered every three hours over a period of 15 to 21 days may be given in early or late asymptomatic neurosyphilis, acute syphilitic meningitis, vascular and meningovascular neurosyphilis and gumma of the brain or spinal cord. Brunsting[1] states that a small group of patients with neurosyphilis have been given penicillin in peanut oil-beeswax and that the results have been equal to those obtained when patients were given penicillin every three hours around the clock.

If improvement is unsatisfactory or there is evidence of a relapse, either clinical or in the spinal fluid, re-treatment with a combination of fever therapy and penicillin must be given.

The utilization of combined penicillin and fever therapy is advised as the initial treatment of primary optic atrophy, paresis and taboparesis.

Cardiovascular Syphilis:

It is impossible to state at present whether penicillin should or should not be used in the treatment of cardiovascular syphilis. If penicillin is employed, extreme caution must be exercised to avoid therapeutic shock during the first five to seven days of treatment. Information to date provides no evidence as to therapeutic efficacy but serves as a warning that penicillin may do actual harm through therapeutic shock.

POST-TREATMENT OBSERVATION

Serologic tests for syphilis do not become negative immediately following rapid treatment. The progress to negativity takes place over a period of weeks to months and is characterized by a gradual decrease in quantitative serologic titer. It is important and necessary to follow a routine of post-treatment observation to determine the results of treatment. Each patient should be examined every month during the first post-treatment year, every three months during the second year, each six months in the third year, and yearly thereafter. At each visit a thorough search for relapsing mucocutaneous lesions should be made and a blood specimen obtained for a quantitative S.T.S. Cerebrospinal fluid examinations are indicated at either six or twelve months after treatment and another check-up is advisable at the end of two years. Such a routine will determine treatment failures, serologic or infectious relapse, and seroresistance. This assures the patient the greatest possible chance of cure by affording re-treatment at the earliest necessity.

Reduction in blood reagin titer of treated patients is usually greatest by the end of the first or second month.[6] In general, primary cases reach negativity in two to three months; secondary cases in three to six months. In most instances the longer a patient has had syphilis the longer it takes for the serologic test to become negative after treatment.[13] Occasionally complement fixation titers of less than 10 persist for many months after treatment. Such cases should not be considered therapeutic failures. In some cases followed by Thomas, complement fixation tests with titers below 10 persisted for more than three years before becoming entirely negative. However, in most of these patients the titer had fallen below 10 within nine months. In early latent syphilis it will commonly take three or four years to reach seronegativity

after rapid treatment. Many latent cases will be seroresistant and a completely negative blood test will never be attained even though additional treatment is given. The management of seroresistance has been well discussed by Moore.[8] Every physician who sees patients with syphilis should read Moore's excellent presentation. One of the greatest errors in the management of syphilis has been the tendency of many physicians to treat a positive blood test without taking into account the degree of activity of the syphilitic process. There is a point of adequate treatment beyond which no further therapeutic success can be attained. Overtreatment accomplishes nothing and is dangerous to the patient when arsenicals and bismuth are used. Seroresistance in treated latent syphilis is common. A persistently positive blood test in a well treated case of syphilis may represent only the scar which remains of a disease well healed. As Thomas states,[13] the aim of therapy in early syphilis is to attain a negative serologic test, but in late syphilis the purpose of treatment is to prevent the progress of the disease and the development of late symptoms. At present the proper management of most cases of syphilis will consist of a rapid form of treatment utilizing penicillin, followed by post-treatment observation and re-treatment in instances of therapeutic failure, relapse or reinfection.

After rapid treatment of syphilis, any one of the following situations may result:

1. Cure. The S.T.S. gradually becomes negative over a varying period of time and remains permanently negative. All clinical signs of active syphilitic infection disappear. The cerebrospinal fluid is normal one year following treatment.

2. Relapse. The S.T.S. reverts to negative or the complement fixation titer diminishes to low values, usually less than 10. Subsequently, there is a sharp rise in titer which is confirmed by repeated tests indicating serologic relapse, which usually precedes mucocutaneous relapse by about one month.

3. Neuro-relapse. The spinal fluid cells and protein are reduced to normal and the complement fixation titer falls; subsequently, the cells and/or protein increase to abnormal values and there is a rise in complement fixation titer. The blood may be either negative or positive as there is no correlation between the blood reagin titer and central nervous system involvement.

4. Treatment failure. The blood reagin titer remains high or has not decreased significantly by six to twelve months after treatment. In central nervous system involvement the cells and/or protein do not return to normal and/or the complement fixation test remains of high titer.

5. Seroresistance. The blood complement fixation titer falls to low values, usually less than 10, but never becomes completely negative or to rise sharply as in relapse.

6. Reinfection. Definite evidence of cure has been attained followed by the appearance of new darkfield positive lesions of primary syphilis while the blood test is still negative.

Re-treatment:

In a certain percentage of patients who receive rapid treatment, subsequent additional therapy will be required in order to obtain a satisfactory therapeutic response. The type of therapy to be used in these re-treatment cases has been discussed in the foregoing section on treatment. Re-treatment is indicated in relapse, reinfection, and treatment failure.

All patients who relapse either serologically or clinically (recurrence of lesions) should be re-treated immediately. Most instances of relapse in early syphilis occur between the third and ninth post-treatment month. The occurrence of a definite rise in serologic titer over the immediately preceding report at a routine post-treatment examination indicates possible relapse. This titer rise should be maintained or increased in at least two or three repeated blood tests over a two to three weeks period before a diagnosis of relapse is finally concluded. The discovery of recurring lesions, especially when they are darkfield positive, definitely establishes relapse. Usually infectious relapse and reinfection can be distinguished by carefully conducted serologic studies. Rein[10] states that, following penicillin therapy in patients with early syphilis, there is usually a progressive reduction in serologic titer. In reinfection, patients attain and maintain complete seronegativity followed by the development of darkfield positive seronegative lesions at a new site. Shortly afterward there develop seropositive reactions with rapidly increasing titers. In relapse there is noted a sudden increase in serologic titer followed in about one month by clinical evidence of mucocutaneous relapse. By carefully following the patient's serologic titer it is often possible to avoid the development of infectious relapsing lesions.

In some patients there is a lack of the desired serologic response and titers remain high, denoting treatment failure. Thomas[13] states that patients with primary or secondary syphilis who possess complement fixation titers greater than 20, or flocculation titers greater than 32, nine months after rapid treatment should be re-treated. Those with complement fixation titers between 10 and 20 may be observed for further drop in titer or re-treated as a precautionary measure. One should not expect a rapid drop in titer after re-treatment. Patients with normal spinal fluids but persistently low complement fixation titers of less than 10 for more than one year after treatment require no further therapy unless marked and sustained rise in titer (relapse) ensues.

In central nervous system syphilis, according to Thomas.[13] the spinal fluid findings are the fundamental guides to treatment. Indications for re-treatment are: (1) Failure of the cells and protein to become normal within six months; (2) A rise in cells or protein to abnormal values after they have been reduced to normal; or (3) A sustained rise in complement fixation titer after initial reduction. Dattner, Thomas and Wexler[3] state that, if the cell count and protein content of the spinal fluid are reduced to normal by treatment and re-

main so, clinical progression or relapse in asymptomatic neurosyphilis rarely occurs, even though the Wassermann reaction persists unchanged or is only slightly to moderately improved. In most cases the complement fixation titer will be significantly reduced or drop to negative within one to six years without further treatment. Thomas[13] feels that it is a mistake to treat patients for neurosyphilis until the spinal fluid Wassermann test becomes negative.

In discussing relapse in treated neurosyphilis, Stokes and Steiger[12] feel that observations should be carried out for at least one year in the absence of convincing evidence of progression before further treatment measures are adopted.

Moore and Mohr[7] state that penicillin exerts a prompt and dramatic effect on abnormalities of the spinal fluid. Affected in order of promptitude of action are the cell count, protein, colloidal curve and Wassermann reaction. The cell count in both early and late neurosyphilis is usually normal in ten to twenty-four weeks after treatment. The protein usually reaches normal by the sixth month. They feel that the results of penicillin therapy in asymptomatic central nervous system syphilis are exceedingly satisfactory since "activity" as signified by increased cells and protein disappears promptly in practically all cases.

SUMMARY

Syphilotherapy is at present in a state of great flux due primarily to the discovery of penicillin in 1943.

2. Accurate diagnosis is not always easy as recent experience has revealed that non-specific positive serologic reactions are numerous.

3. Quantitative serologic tests for syphilis are valuable in diagnosis and post-treatment observation of syphilis.

4. When penicillin alone is used in the treatment of syphilis large doses should be used.

5. In cases requiring re-treatment the addition of arsenicals and bismuth to the penicillin schedule is advised.

6. Penicillin therapy of syphilis in pregnancy is greatly superior to metal chemotherapy.

7. The serologic test for syphilis does not become negative immediately after treatment. All patients must follow a routine of post-treatment observation.

8. Results of treatment of neurosyphilis with penicillin have been very gratifying.

9. The spinal fluid findings are the fundamental guides to treatment in central nervous system syphilis.

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EDITORIALS

Coronary Insufficiency

The concept of coronary insufficiency has evolved over recent years in concert with the appreciation of the importance of *dynamic* functional equilibria in physiological processes. The strictly anatomic structural abnormalities disclosed by the minute pathologic studies of the Virchow school of pathologists, while of great importance, have failed to explain many clinical phenomena observed during life. The absolute, *static* degree of abnormality, whether noted in the concentration of an electrolyte as an isolated finding, the venous pressure at rest, or the amount of coronary arteriosclerosis found at autopsy, does not reflect the functional effects of such abnormality on the organism as a whole. It is necessary to relate such abnormalities to the working individual in physiologic balance.

The concept of coronary insufficiency is, therefore, a physiologic concept, one that relates not alone to the degree of coronary arterial lesion, or to the size of the heart as such, but to the *balance* between blood flow in the coronary arteries and the need of the myocardium for blood. Whenever the requirement of the myocardium for oxygenated blood exceeds the flow of blood to the myocardium at any given instant, a state of coronary insufficiency may be said to exist. A significant degree of coronary arteriosclerosis may exist without functional coronary insufficiency if the exertional demands on the heart are limited. On the other hand, a modest degree of coronary arteriosclerosis may be productive of functional coronary insufficiency when excessive work is demanded of the heart as in severe exertion or hyperthyroidism. If the work demanded of the heart is only moderate, and the degree of coronary arterial disease is modest, functional coronary insufficiency can result if the blood flowing through the coronary arteries is deficient in oxygen carrying hemoglobin as in severe anemia; or if the head of pressure responsible for the flow of blood through the coronary arteries is greatly reduced as in the hypotension of shock or tachycardia, or in aortic stenosis; or if the diastolic recovery of the heart is limited in rapid heart rates; or if the efficiency of the heart is reduced as in extra systoles and in cardiac irregularities without excessive rates. It is clear that the functional status of the coronary circulation is the resultant of many dynamic factors of which the most important are: (1) the degree of narrowing of the coronary arteries; (2) the size of the coronary capillary bed in relation to the size of the heart (there may be a relative disproportion in cardiac hypertrophy with normal coronary vessels); (3) the presence of anemia; (4) the presence of an abnormal metabolic rate; (5) the systolic head of pressure in the aorta; (6) the diastolic pressure; (7) the rate and regularity of the heart; (8) the work of the heart. It is apparent that strictly anatomic studies will not show adequate correlation with the functional limitations of the individual during life.

Various classifications of coronary insufficiency have been offered. That of Katz defines three groups: (1) acute transitory coronary insufficiency as in angina pectoris; (2) acute protracted coronary insufficiency, as in acute myocardial infarction; and (3) chronic insufficiency, as in progressive coronary disease with myocardial fibrosis and eventual cardiac failure. This classification is helpful and explains most examples of coronary insufficiency. Thus angina pectoris, or acute transitory coronary insufficiency, reflects the temporary disproportion between blood flow and cardiac metabolic needs induced by effort or severe emotion. When the disproportion continues, or coronary insufficiency is protracted, as in coronary occlusion, prolonged shock from any cause, large doses of epinephrine, etc., irreversible changes occur in the

myocardium which result in myocardial infarction. Thus myocardial infarction can occur in the absence of coronary occlusion if coronary insufficiency is protracted enough. This fact has been well substantiated by the experiments of Blumgart and his co-workers. Likewise, coronary occlusion may occur without myocardial infarction if the collateral circulation from other coronary arteries is sufficiently adequate to prevent coronary insufficiency.

Coronary insufficiency can be recognized by either the appearance of angina pectoris, myocardial infarction, or by the presence of characteristic ECG findings. The last may be present in the absence of symptoms but must be cautiously interpreted. The development of intraventricular block while the patient is being observed, or the presence of typical Q waves, ST segment contours, and T wave changes in combination are necessary for an unequivocal diagnosis of coronary insufficiency from the ECG alone. The use of unipolar exploring leads is expanding the usefulness of the ECG as a diagnostic tool in these cases.

In doubtful cases, acute transitory coronary insufficiency may be precipitated by various means such as inhalation of 10 per cent oxygen, epinephrine, or a moderate exercise test. Levy has investigated the effects of myocardial hypoxia induced by the inhalation of 10 per cent oxygen and his publications cite criteria for an abnormal response. However, the necessity for specialized equipment and reported serious effects from the procedure indicate that this method is not practical for ordinary clinical use. Epinephrine has produced myocardial infarction and also is not recommended. Exercise is the safest and most easily available method of inducing coronary insufficiency and a recent study with adequate controls has been published by Twiss and Sokolow. These authors define the criteria for an abnormal ECG response to exercise. Needless to emphasize, careful observation of the patient during the exercise test adds much to the value of the procedure.

It is felt that the concept of functional coronary insufficiency as contrasted to organic coronary disease will be of considerable aid in understanding the symptoms and clinical course of patients with this pathophysiologic disturbance.

Public Relations and Medicine

Public relations, like medical practice, often suffers from a lack or an ambiguity of definitions. Unlike those in medical practice, terms in public relations cannot be pinned down to specificity in some respects by the addition of a prefix or suffix.

Get ten public relations professionals together and you will get ten definitions as to what public relations is. One authority wrote a book on the subject and completed 360 printed pages with the conclusion that he could not define the field.

At a recent medical meeting where this topic was under discussion, the speaker admitted his inability to define the term but he did give the two requisites of a public relations program. First, he said, you must "be good or do good." Second, you must "tell about it."

The medical profession of California has long been interested in the creation of better public relations, in a better public understanding of the profession's aims and attitude. The need has been pointed up by attacks made on the profession by various lay critics, including a not inconsiderable number of highly placed politicians. The climax has come in the demand for a system of public medical care under the guise of an insurance program with compulsory features either admitted or implied throughout many legislative proposals.

In reply to this need for public relations, California medicine has employed public relations counsel and has gone before the public with a long and costly campaign. It has brought out the weak points, the impossible provisions, of legislative proposals which would wreck sound medical practice in the effort to improve the spread of medical care. It has carried the message to the public and to the legislators. It has worked concurrently to advance as rapidly and as soundly as possible the availability of a substantial program of medical cost prepayment through medicine's own organization, California Physicians' Service.

There have been critics of this program, and even some who profess an ability to do the job better. Doubtless there have been errors in the commission of the numerous details which enter into the fulfillment of a campaign of such magnitude. All in all, however, it must be recognized that progress has been made and that medicine stands higher in public esteem today in this state than it did two years ago. The very paucity of newspaper headlines concerning present proposals for compulsory health insurance argues in this direction.

The campaign for the past two years has been of the "tell about it" nature. It has not had time to concern itself with the "be good or do good" side of public relations. Now, with the sting taken out of public disapproval, it may well be time to take stock of the current situation and to consolidate the gains already made. It may well be time to plan a campaign improving the plant by looking to the well-being of the roots.

There are those in every profession, a minority to be sure, who bring discredit which can outweigh the good done by the majority. There are those in our profession who engage in practices which reflect discredit, not always through thoughtlessness. There are doubtless a few who take deliberate advantage of the public and whose practices present a problem of control that may well demand police powers.

The existence of these factors indicates the need of a self-inspection and improvement. Continued education is one approach, founded upon factors both ethical and scientific. Spectacular measures may or may not be necessary; routine procedures can certainly be evolved to help much of the problem. And that "look into the mirror" ought to produce results.

Despite some unavoidable failures or faults, the C.M.A. has undoubtedly done a good job in the past two years in looking out for the "tell about it" side of public relations. This work should be continued, at least to the extent necessary to maintain the position already gained. We must now take a closer look at the aspect of improved professional work and better ethics.

Compulsory Government Health Service*

Walter H. Judd, M.D.
Congressman, 5th District, Minnesota

Our present system of medical service gives better *average* medical care than any other system in the world. That does not permit us to ignore the fact that under it many people below the average do not get adequate medical care. Doctors and dentists and hospitals and health insurance companies exist for the benefit of the sick, not the reverse. Therefore, they must take a more active lead in making better care possible for the quarter of our population who do not have it, while retaining the essentials of the system which has done so well for the three-quarters—or else action will be taken by political groups which in the long run will not be good for either the patient or those who provide medical care.

Present proposals for universal governmental control of medical service would lead to the evils of compulsion and concentration of power in an inevitably huge and sprawling bureaucracy. Why should any be so naive as to believe it would be more efficient and less dictatorial than other bureaus have been? Power feeds on power. Power also always corrupts.

The greatest evil is the regimentation and inferior grade of medical care which will inevitably result in a system which gives essentially the same rewards to the competent and the incompetent. It tends to hold down the former and hold up the latter. When the doctor or dentist gets paid by the government, then he works for the government, not the patient. There may be more equitable distribution of such care as there is, but such care as there is in most cases will steadily deteriorate—as any person who has dealt with government medicine in the Army and Navy, or most veterans' hospitals or state institutions can testify.

Doctors and dentists and private insurance companies must experiment boldly with various plans in individual cities, counties, and states, until we can work out voluntary insurance systems on a sound actuarial basis which will bring the advantages of better distribution without deterioration of quality. Much progress is already being made in this direction—in California, Michigan, Minnesota, etc.

We must also do a better job of selling to the public the dangers to them of government controlled medical service. The public has been told what that system would allegedly give. It has not realized what it will take away. But doctors know. The dangers in the proposals are not to the doctors, but to the public, i.e. to the sick.

Government allowances for the permanently disabled or infirm or aged are of course wholly to be approved. Also provision for all who may be temporarily unable to pay for necessary service.

The answer is to be found in formation of private medical insurance and sick and accident benefit organizations. They ought to be operated under private enterprise and not by government bureaus which would promptly yield to the temptation to make a partisan political instrument of federal socialized medicine.

* Abstract of informal remarks before officers of the California Medical Association, San Francisco, February 12, 1947.

Clinical-Pathological Conference

LOS ANGELES COUNTY GENERAL HOSPITAL. NOVEMBER 27, 1946

The patient, a 36-year-old Philippine male, was referred to the Social Hygiene Clinic by a physican who reported in the spinal fluid a paretic colloidal gold curve. At that clinic on March 26, 1946, the patient's chief complaints were (1) diplopia, (2) numbness of the right side of the head and (3) frequency of urination. He had been treated for lues in 1934 and again recently. His blood serological test for syphilis was strongly positive.

On the first examination the essential physical findings were these: head turned to right, pupillary inequality (right larger than left), bilateral horizontal nystagmus, paralysis of the left external rectus muscle and right ankle clonus. Hearing was defective in the left ear, which showed a tympanic scar. There was questionable right facial weakness. Visual fields were normal and cerebration seemed unaffected. The rest of the examination was essentially negative. Subsequent examinations revealed a pattern which, with a few minor inconsistencies, was one of progressive deterioration. Thus, on admission to the hospital on March 28 there was no nystagmus, but there was paresis of the right internal rectus muscle, left masseter weakness, and leftward deviation of the uvula, palate and tongue.

On April 8 the patient was said to "feel a little better," but the entire group of left ocular muscles was thought to be paralyzed. On April 26 there was first noted slurring of speech, impairment of memory, personality changes, sluggish, irregular pupils, impaired touch and pain sensation on the right, ataxia, broad base tabetic gait, tendency to fall to the right, questionable weakness of the right arm and hand, and lacrimation in the left eye. Also specified were paralysis of the left external rectus muscle, paresis of the left upward gaze, left lid lag, paresthesia and sweating of the right face and scalp and palatal deviation to the right. On May 13 a neurological examiner recorded involvement of the left sixth, seventh, ninth, tenth and eleventh nerves and the right pyramidal tract, the mesial lemniscus, the posterior longitudinal bundle and the inferior cerebellar peduncle. He recorded early left abducens palsy, dissociated eye movements, left lid lag, absent pharyngeal reflex, uvula directed to the right, right hemiparesis with increased deep reflexes and pathologic reflexes, complete right hemianesthesia including neck and face and ataxia of both sides, most marked on the left. The diagnosis was: "Picture of contralateral hemiparesis and hemianesthesia, ipsilateral hemiasynergia and ipsilateral lower cerebral nerve involvement with oculogyric paresis, indicating a lesion of the tegmentum of the caudal pons, ventral enough to include the pyramidal system—the picture of thrombosis of a large median branch of the basilar artery, leutic thrombosis, possibly aggravated by the Herxheimer reaction following antileutic therapy. Good example of the pontile syndrome of Raymond-Cestan." On June 8 the same examiner noted no signs of improvement. The patient was becoming increasingly lethargic and unresponsive. Death occurred July 17.

Upon admission to the hospital the blood count was unremarkable. Quantitative Kahn and Wassermann tests showed four plus reaction with 0.025 ccm. of serum. A single urinalysis showed 4-5 white blood cells per high power field, with no other abnormalities. Spinal fluid showed pressure 110 mm. of water, normal response to jugular compression, Pandy two plus, 13 lymphocytes, 2 polymorphonuclear leukocytes, sugar 58 mg. per cent, chloride 712 mg. per cent, protein 0.10 mg. per cent, colloidal gold 23344444442. Kahn and Wassermann negative. A second spinal fluid examination on July 1 showed essentially the same pattern. Films of the chest April 9 and the skull and cervical spine April 27 were reported as essentially negative.

The patient was vigorously treated with thiobismol, mercury succinimide, typhoid vaccine and penicillin, without response.

Two other unexplained phenomena were (1) the patient's consistent complaint (corroborated on the ward) of urinary frequency and (2) the appearance of clots and bright blood in a number of stools. A rectal consultant on May 13 reported no obvious disease other than a large prostate and recommended return for further examination following proper preparation. On April 18 the intern had recorded marked urinary frequency without loss of bladder control. However, no urologic study was done.

Clinical Diagnosis: Meningovascular lues.

CLINICIAN'S DISCUSSION

DR. HOXIE*: The complex array of neurological signs and symptoms can all be attributed to a lesion in the pons more on the left side. This lesion might be vascular, but the patient is young for arteriosclerosis and has no hypertension. The onset and course are too gradual for embolism. A tumor is a possibility, but on this basis the normal spinal fluid pressure, the fever, and the associated symptoms of blood in the stools and frequency of urination are hard to explain. Secondary carcinoma from a primary in the bowel or urinary tract is not likely to be limited to the pons. A negative chest plate does not rule out bronchogenic carcinoma.

The blood Wassermann and Kahn tests were strongly positive but it is highly improbable that the central nervous system lesion was caused by syphilis. The mild but definite changes in the spinal fluid cells and proteins should be accompanied by a positive spinal fluid Wassermann and Kahn tests if the changes were caused by a syphilitic lesion.

* Dr. Harold Hoxie, Assistant Professor of Medicine, College of Medical Evangelists, and Attending Physician, Los Angeles County General Hospital.

Syphilis of the bladder is rare and usually there is dysuria and hematuria as well as frequency. Another reason to think syphilis was not to blame was the failure to respond to vigorous anti-syphilitic therapy.

The complaint of frequency of urination associated with a brain lesion suggests the possibility of a diabetes insipidus. The neurological symptoms and signs would suggest a lesion too far posterior to involve the pituitary stalk and no mention is made of polyuria or increased thirst. The emphasis on frequency suggests that there was cystitis.

A febrile course of moderate severity suggests an infection. The prolonged course and persistence while under treatment with penicillin favors a granulomatous type of infection. Tuberculosis could account for all this patient's symptoms and signs. In tuberculosis the blood count is likely to appear unremarkable. Penicillin does not control fever caused by tuberculosis. The cystitis may have been tuberculous although there is usually associated dysuria. Tuberculous cystitis is usually secondary to active tuberculosis of the kidneys or genitalia. We have no evidence on which to rule out tuberculosis of the kidney, and the prostate was said to be large. The scanty findings in the urine are not unusual in the presence of urinary infection, especially tuberculosis. This is especially true when only one sample is examined.

The bleeding from the bowel could be caused by tuberculosis but this disease is not too frequent in the rectum or anus, the usual source of bright red blood in the stool. Rectal lesions seem to have been ruled out by the proctoscopic examination.

A tuberculoma in the pons could account for the neurological signs. Tuberculomas seem to occur more commonly subtentorially. The increased cells with lymphocytes predominating and the increased protein are consistent with a small amount of meningitis about the tuberculoma. The spinal fluid changes are too mild and the lesion in the pons too well defined for the whole neurological picture to be due to tuberculous meningitis. A negative chest x-ray does not necessarily mean that tuberculosis does not exist in other organs.

The fungus diseases, coccidioides, actinomycosis and blastomycosis may produce focal lesions in the brain and also meningitis. If due to actinomycosis or blastomycosis, there should have been lesions evident in other organs. The basal meningitis caused by coccidioides usually causes obstruction to the flow of spinal fluid due to the gelatinous character of the exudate.

I believe the most likely explanation of this patient's symptoms is that he had a tuberculoma of the pons with slight meningitis and tuberculosis of the bladder, kidneys and prostate.

Dr. Hoxie's Diagnosis: Tuberculoma, left pontile area, tuberculous meningitis (slight); tuberculosis, kidney, bladder, prostate.

REVIEW OF PATHOLOGY

DR. HUNTINGTON*: Dr. Hoxie's score remains perfect. There was extensive caseous tuberculosis of both kidneys and both ureters with tuberculous ulceration of the bladder. The lungs showed numerous nodules 3 to 4 mm. in diameter with caseous centers. Acid-fast bacilli were readily demonstrated on smear from these lesions. The pulmonary nodules were thought to represent hematogenous dissemination. A similar interpretation seems justified for the tuberculous ulceration of the cecum, which was apparently the source of the intestinal bleeding described in the protocol. In the majority of cases of intestinal tuberculosis the accepted explanation is that of swallowed sputum. However, in rabbits inoculated intravenously one frequently sees involvement of the ileocecal region, and in our experience with small inocula and chronic infections in the rabbit, pulmonary cavitation was quite unusual. Moreover, I have seen a number of rabbits in which the only evident tuberculosis was in the cecum. Such observations incline me to the belief that in the rabbit the cecal region is a focus favorable for localization of tubercle bacilli disseminated by the blood stream. (This case suggests a similar hypothesis for man). There was a large tuberculoma in the left pontile region, just as Dr. Hoxie has predicted. There was also scattered, rather meager tuberculous meningitis.

This case illustrates, among other things, the danger of assuming that everything is syphilitic in an individual with a positive serological test. In this case there were minor, rather nondescript changes in the aorta. We were unable to make a definite interpretation of these changes. No other anatomical explanation of the serologic findings was apparent. Recent reports have agreed that a positive serologic test does not necessarily indicate active lues. In yaws, which is thought to be a self-limited disease, a persistently positive serologic test was the rule in our Samoan experience.

Anatomical Diagnosis: Tuberculoma of brain, left pontine area; tuberculous meningitis; pulmonary tuberculosis of lungs; tuberculosis, generalized: tuberculosis, large bowel; tuberculosis, renal.

DISCUSSION

DR. CARTER*: Considering in retrospect the roentgenograms of the chest, skull and cervical spine made in April, 1946, no occasion is seen to challenge the negative reports originally made on these examinations. The roentgenogram of the chest is of some interest. Since three months elapsed between the roentgenogram and death, it is quite likely that the miliary involvement of the lungs rose to visibility after the examination was made. This is not necessarily true, however. Miliary tuberculosis can occur, which is not evident on the film, so that a so-called negative chest will not exclude miliary tuberculosis.

Paul Steiner has emphasized this point in special relation to miliary tuberculosis in childhood, finding that visibility depended largely upon the amount of calcification or caseation in the individual tubercles.

* Dr. Robert Huntington, Jr., Associate Professor of Pathology, University of Southern California, School of Medicine, and Attending Physician, Los Angeles County General Hospital.

* Dr. Ray A. Carter, Clinical Professor of Radiology, University of Southern California, School of Medicine, and Chief Radiologist, Los Angeles County General Hospital.

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NOTICES AND REPORTS

E. Vincent Askey, M.D.—C.M.A. President-Elect

The demographer with his reams of statistics on population trends, the civil engineer with his data on the stress and strain of materials, and the corporation attorney with all manner of decisions at his finger-tips have much in common. They are dealing with abstract figures, useful and constructive, of course, but nevertheless, lifeless. Not so, the biographer. While he must perforce take refuge at times under the shelter of certain statements of fact, his primary concern lies in a presentation and interpretation of what might properly be termed the biographic dynamics of his subject. He asks and answers the question: "What makes this man stand out as a leader among his fellows?"

Dr. E. Vincent Askey was born in Sligo, Pennsylvania, where he received his early education in the public schools. Upon completion of the eighth grade, he moved with his family to Hoquiam, Washington, where he attended High School, graduating in 1913. Back in the East, he attended Allegheny College in Meadville, Pennsylvania, for four years, completing the course with the degree of Bachelor of Science in 1917. His under-graduate medical training was at the University of Pennsylvania where he obtained the degree of Doctor of Medicine in 1921. Internship and Residency were completed in Philadelphia.

He is a member of Alpha Omega Alpha honorary fraternity, Delta Tau Delta social fraternity and Nu Sigma Nu medical fraternity.

Dr. Askey's professional interests have always been in surgery, to which field he limits his work, having practiced in Los Angeles for over twenty years. He became a Fellow of the American College of Surgeons in 1929. He is married and the father of three children, one daughter and two sons.

A Methodist by early training and later inclination, Dr. Askey has been active in the Westwood Community Methodist Church, having for several years served as a Trustee in that organization.

So much for the mere perfunctory chronicling of biographical data. Now, for a look at the intangibles in his history which, as is so often the case, are of far greater importance in explaining why he should be chosen to lead the California Medical Association.



Early in his professional career, Dr. Askey became interested in civic affairs as well as in the economic phases of medical practice. He was a member of the Los Angeles School Board from 1937 to 1943, serving as that body's President during the year 1941. Sitting on that Board, he contributed much to the establishment of an improved curriculum and received in turn invaluable insight into an important phase of a State-regulated venture.

Medical organizations have always attracted him. He plunged wholeheartedly into the activities of the Los Angeles County Medical Association as its Secretary-Treasurer during the years 1935 to 1937, and served as its President in 1943. During the first three of the past six years, he was Vice-Speaker of the House of Delegates of the California Medical Association and during the past three years, he has been Speaker, taking a most active part in the deliberations of the Council and of the Executive Committee. To him is due credit for introducing before the Council a resolution calling for a thor-

ough study of the California Medical Association's public relations, and resulting in the employment of Foote, Cone & Belding to conduct the excellent survey which has been the basis for our highly successful program of public education. He is now serving his second term as delegate to the American Medical Association.

Dr. Askey succeeds a long line of capable predecessors who have contributed unselfishly and most effectively to the welfare of the State Association. His background, training and accomplishments to date leave no doubt that he will make a worthy contribution to the ideals and aims of Organized Medicine.

Cancer Commission's Revised Studies To Be Published in California Medicine, Then Bound as Manual

A special committee of the Cancer Commission of the California Medical Association has been working for the past two years in revising the original Cancer Commission studies in order to prepare a new Cancer Manual for distribution to the physicians of this state. This Manual will first appear in serial form in a special section of California Medicine. Reprints of these chapters will be assembled and bound as a California Cancer Manual which will be sent on request to any member of the California Medical Association.

This revision of Cancer Commission studies has been prepared to aid the practicing physician in the diagnosis and management of early cancer. Early cancer is curable, and the present high mortality of the disease is largely due to the unnecessary period of delay between the onset of the lesion and the time of effective treatment. The present public health education is making the public cancer conscious, and is giving the practicing physician a better opportunity for earlier diagnosis and more effective treatment.

The original Cancer Commission Studies were prepared in 1932 to 1934 by special committees of the Cancer Commission, consisting of 200 physicians representing a cross-section of the medical profession in California. These committees worked for approximately two years in collecting the most up-to-date opinion regarding the methods of diagnosis and adequate treatment of early cancer in the various regions of the body. These studies were published in California and Western Medicine, and were assembled into a reference manual for distribution to the physicians in California.

Since that time excellent cancer manuals have been published by the State Medical Societies of Iowa, Massachusetts, and Michigan. The Illinois State Medical Society has published a manual in serial form which has been distributed bi-monthly to the members of the Society as the *Illinois Cancer Bulletin*. Several other State Societies have distributed this *Bulletin* throughout their membership.

The Commission believes that progress in cancer control depends on more prompt diagnosis and immediate adequate treatment. The private physician who first sees the cancer patient can control the unnecessary delay that is causing approximately 25 per cent of our cancer mortality. These Cancer Commission Studies are designed to aid the physician in a more effective approach to the cancer problem in his private practice.

A list of the proposed articles to be included in the Cancer Commission Manual follows:

1. The Cancer Problem, General Considerations — David A. Wood, M.D.
2. Principles in the Treatment of Cancer — Emile Holman, M.D.
3. Radiation Therapy of Cancer — R. R. Newell, M.D.
4. Examination of the Cancer Patient, Otto Pflueger, M.D.
5. Biopsy—Indications, Technique and Safeguards — A. G. Foord, M.D.
6. Cancer of the Skin — H. F. Ullmann, M.D.
7. Cancer of the Lip — Ian Macdonald, M.D.
8. Cancer of the Mouth and Tongue — G. S. Sharp, M.D.
9. Cancer of the Tonsil and Pharynx, L. F. Morrison, M.D.
10. Cancer of the Larynx — Simon Jesberg, M.D.
11. Cancer of the Thyroid — Robertson Ward, M.D.
12. Cancer of the Lung — John C. Jones, M.D.
13. Cancer of the Esophagus — Brodie Stephens, M.D.
14. Cancer of the Breast — A. R. Kilgore, M.D.
15. Cancer of the Stomach — H. G. Bell, M.D.
16. Cancer of the Colon — R. A. Scarborough, M.D.
17. Cancer of the Rectum and Rectosigmoid — W. H. Daniel, M.D.
18. Cancer of the Liver, Gallbladder and Pancreas — Eric Larson, M.D.
19. Cancer of the Kidney and Cancer of the Testicle — Frank Hinman, M.D.
20. Cancer of the Bladder — A. J. Scholl, M.D.
21. Cancer of the Prostate — R. W. Barnes, M.D.
22. Cancer of the Ovary and Fallopian Tube — Erle Henriksen, M.D.
23. Cancer of the Corpus Uteri — H. N. Shaw, M.D.
24. Cancer of the Cervix Uteri — H. F. Traut, M.D.
25. Tumors of the Brain and Spinal Cord — H. C. Naffziger, M.D.
26. Sarcomas of Soft Tissues — John Budd, M.D.
27. Bone Tumors — Donald King, M.D.
28. Lymphoblastomata — Angus Wright, M.D.
29. Malignant Disease In Childhood — John Kenny, M.D.

Report on American Cancer Society Directors' Meeting

Dr. David A. Wood, Regional Director of the Sixth District and Secretary of the California Division, attended the annual meeting of the Board of Directors in Chicago on March 8. Doctor Wood returned thoroughly satisfied and highly enthusiastic with regard to the work and program of the National Society. His report of that meeting to the California Division is in part as follows:

The officers of the American Cancer Society elected at that meeting were: President, Dr. E. P. Lehman, University of Virginia Hospital; Vice

President, Dr. L. W. Larson, Bismarck, North Dakota; Medical and Scientific Director, Dr. A. W. Oughterson; Chairman of the Board of Directors, Mr. Eric A. Johnston; Treasurer, Mr. J. Ernest Allen; Secretary, Mr. Charles D. Hilles, Jr.; Assistant Secretary, Mr. Harry A. Murphy; Executive Vice President, Mr. Douglass Poteat; National Commander of the Field Army, Mrs. H. V. Milligan.

The annual meeting of the Society has been changed from March to the fourth Friday in October of each year. The next meeting will be October 29, 1947. The Board of Directors will meet four times a year in the months of October, January, March and June. At least one meeting a year will be held in Chicago. The National Executive Committee will meet each month in which the Board of Directors does not meet.

Dr. Frank E. Adair, retiring President, announced that last year the American Cancer Society had contributed to research on cancer $3,500,000, the largest sum ever before devoted exclusively in one year to research on cancer. Also, the American Cancer Society deserves much credit, through its educational program last year, for activating the participation in and the increased support of cancer research by the United States Government. The budget of the United States Public Health Service for cancer in 1945 was $500,000; for grants-in-aid to research on cancer was less than $100,000. For 1946 the budget of the National Cancer Institute had been increased to $1,250,000 and grants-in-aid by that federal agency had been increased to $500,000. This three-fold increase in the appropriation is largely due to the educational program of the American Cancer Society.

Mr. James S. Adams, Chairman of the Executive Committee, reported on the various problems that have beset the American Cancer Society in the past, reporting on matters of policy past, present and future. Mr. Adams reported that the financial setup of the American Cancer Society is now on a firm basis and this year has been complimented by various rating services. He reported that the Medical and Scientific Committee plans meeting with the deans of the medical schools referable to cancer research, education, and fellowships. At the present time, it is difficult to find men of proper qualifications to take the fellowships that have been offered by the American Cancer Society.

Mr. Adams reported that the American Cancer Society disapproved the Neely-Pepper Bill for $100,000,000 on the basis that there is no way at present to properly spend such an amount. The Executive Committee will probably recommend that a sum somewhat in excess of the present fund should be increased to a level commensurate with the present facilities and personnel,—that the sum should not represent a figure picked out of the air. To give the public the idea that cancer can be solved by merely appropriating a large sum of money may do a great harm through impatient disillusionment. Mr. Adams feels that the American Cancer Society should approve a federal appropriation of up to $5,000,000 but not beyond that until proper facilities and problems to properly use more money become available.

Mr. Adams reported that cooperative relationship has been achieved with the American Red Cross, the American Tuberculosis Association, and the National Foundation for Poliomyelitis. Dr. A. W. Oughterson, Medical and Scientific Director, reported that the American Cancer Society has a working relationship with the American Medical Association, the American College of Surgeons and the American College of Radiology.

Doctor Oughterson stated that there are two main approaches to promote cancer control:

1. Stimulate the maximum use of methods already available for the prevention, diagnosis and treatment of cancer.
2. Support research for new methods of prevention, diagnosis and treatment.

In order to achieve maximum efficiency in the methods now available, the four following objectives must be obtained:

1. Lay education.
2. Early diagnosis.
3. Prompt treatment.
4. Adequate treatment.

In the field of lay education, the American Cancer Society in publishing *Cancer News*, which will be widely distributed to the County Branches. Two motion pictures with sound tracks are ready for distribution and another is soon to be released. Also, new radio releases and exhibits are in preparation. In professional education. The American Cancer Society will shortly publish a magazine for physicians. Special arrangements have been made with the American Medical Association to publish sixteen articles a year on cancer. Material is being assembled for refresher courses for practicing physicians, which includes necessary charts and lantern slides.

Doctor Oughterson reported that there are 116 detection centers in this country, 66 of which are supported in toto by the American Cancer Society. Doctor Oughterson emphasized the value of detection centers and their possibilities but called attention to the fact that because of the present shortage of physicians there are not sufficient doctors to open a large number of detection centers throughout the country.

Mr. Robert W. Hudgens, the newly appointed director of Field Organization, emphasized that there must be an intensive effort at organization throughout the United States to fit in behind the campaign and to continue the work throughout the year.

The next meeting of the Board of Directors will be held in New York on June 6.

In Memoriam

CALLANDER, CURLE LATIMER. Died suddenly in San Francisco, on March 31, 1947, age 54. Graduate of Johns Hopkins University School of Medicine, Baltimore, 1917. Licensed in California in 1920. Doctor Callander was a member of the San Francisco County Medical Society, the

California Medical Association, and a Fellow of the American Medical Association.

✣

CRASE, HERBERT RICHARD. Died February 21, 1947, age 44. Graduate of Stanford University School of Medicine, 1927. Licensed in California in 1927. Doctor Crase was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✣

FENTON, WALTER WALLACE. Died in Loma Linda. March 21, 1947, of a heart attack. Graduate of Vanderbilt University School of Medicine, Nashville, 1914. Licensed in California in 1915. Doctor Fenton was a Retired member of the San Bernardino County Medical Society, the California Medical Association, and an Affiliate Fellow of the American Medical Association.

✣

HALLORAN, CHRIS RICHARD. Died March 8. 1947, age 51. Graduate of the University of Texas Medical Branch, Galveston, 1923. Licensed in California in 1926. Doctor Halloran was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✣

HARWOOD, ROBERT SAMUEL. Died March 11, 1947, age 56. Graduate of the Chicago College of Medicine and Surgery, 1915. Licensed in California in 1938. Doctor Harwood was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✣

KUSEL, ELI ABRAHAM. Died in Oroville, March 19, 1947, of cerebral arterio sclerosis and apoplexy, age 72. Graduate of the Cooper Medical College, San Francisco, 1895. Licensed in California in 1895. Doctor Kusel was a member of the Butte-Glenn County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✣

MELVIN, JOHN JOSEPH. Died in Oakland, April 7, 1947, of myocardial infarction due to arteriosclerosis, age 45. Graduate of Creighton University School of Medicine, Omaha, Nebraska, 1927. Licensed in California in 1939. Doctor Melvin was a member of the Alameda County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✣

ROBERTS, ARCHIE MARVIN. Died in Los Angeles, April 1, 1947, of a heart attack, age 44. Graduate of Stanford University School of Medicine, 1929. Licensed in California in 1929. Doctor Roberts was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✣

TEPPER, GILBERT BERNARD. Died at age 44 in Los Angeles, April 4, 1947, of a heart ailment. Graduate of the University of Illinois College of Medicine, Chicago, 1927. Licensed in California in 1929. Doctor Tepper was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✣

VAN SCOYOC, JAMES GUY. Died in Los Angeles, March 23, 1947, after a brief illness; age 57. Graduate of Creighton University School of Medicine, Omaha, Nebraska, 1914. Licensed in California in 1931. Doctor Van Scoyoc was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

NEWS and NOTES

NATIONAL • STATE • COUNTY

ALAMEDA

"The Governor, according to newspaper reports, is selling something he cannot produce when he **promises a hospital for everybody,"** Dr. James M. Neil of the Alameda County Medical Association told the City Commons Club of Berkeley in a recent address on Voluntary Health Insurance. "We are short about 860 beds in Alameda County, and this ratio fairly represents the situation in other communities," Dr. Neil said. Comparing voluntary medical care plans and state medicine in another phase, the speaker said: "Our experience teaches us that unless you have confidence in your doctor you had better look for another doctor. You would not have that privilege under the compulsory plan."

Dr. Marshall C. Cheney, physician in charge of student health, University of California, Berkeley, has been awarded one of three new research grants awarded last month by Sharp & Dohme, Inc., Philadelphia. The grant is in support of Dr. Cheney's research into the possibility of preventing the common cold by means of respiratory vaccines.

BUTTE-GLENN

Dr. Darius S. Caffaratti, medical superintendent of Butte County Hospital, has submitted his resignation to the board of supervisors, effective May 31. **Dr. Gaylord W. Boom,** Los Gatos physician, who was discharged in December from the Army Medical Corps, has been named to succeed him.

LOS ANGELES

Dr. Louis E. Martin has been appointed president of the board of directors of the Los Angeles County **Tuberculosis and Health Association,** succeeding Dr. Reginald H. Smart, who took over the office of first vice-president. The new officers were chosen at a meeting at the Biltmore at which Dr. Emil Bogen, director of laboratories at Olive View Sanitorium, and Dr. William Paul Thompson, vice-president of the Los Angeles Heart Association, spoke to the group about the so-called "miracle drugs" and their uses in the treatment of tuberculosis and heart disease.

Dr. George S. Sharp, of Pasadena, a member of the California Cancer Commission, represented the California Medical Association as a speaker at an **Institute on Cancer** attended by approximately 200 public health nurses from the western half of Los Angeles County. This was one of 12 institutes started over the state February 1 to inform the California Public Health Association and its nurses of the **new duties connected with cancer** patients. The program is the result of combined efforts of the California Cancer Commission, California Health Department and California Medical Association to register and follow up as many cancer patients in the state as possible. Progress was reported by Dr. Sharp and Dr. Lester Breslow, chief medical officer of the California Health Department.

Dr. Mary N. Wilkinson, a former Fresnan, has been appointed assistant Fresno County and City Health officer. She succeeds **Dr. Richard Carter,** who retired in January. Dr. Wilkinson, who is a graduate of the College of Medical Evangelists, interned in the Shanghai, China, Sanatarium and Hospital where she later became resident pediatrician.

Plans to finance certain selected young doctors in one to three years of advanced training were revealed with the formal announcement last month of the establishment of the **Moore-White Medical Foundation.** The purpose of the foundation, according to Dr. H. D. Van Fleet, secretary, will be threefold—to enable young doctors to gain more training in chosen fields of specialization, to conduct scientific research, and to provide diagnostic facilities and treatment for worthy persons not eligible for admittance to charitable institutions.

The Foundation will appoint, as fellows, selected young doctors who have just completed their internships and give them one to three-year **advanced training** in hospitals and at the clinic, in surgery, medicine, obstetrics, radiology and other branches of medicine. It will guarantee the fellows a fixed annual income in keeping with accepted schedules in other foundations.

FRESNO

Dr. V. S. Briden, recently released after nearly seven years' service in the Navy Medical Corps, has established his office in **Fresno.** He will limit his practice to neuropsychiatry, a field in which he worked exclusively in the last five years of his naval service. Dr. Briden interned in the Fresno County General Hospital following his graduation from the University of Iowa in 1936. Before entering the Navy, Dr. Briden practiced in Merced.

NAPA

Dr. Dwight H. Murray attended a recent meeting of the trustees of the American Medical Association in Chicago.

Dr. David B. Williams, chief surgeon in charge of the medical staff at the State Veterans' Home at Yountville will be promoted next fall to the superintendency of one of the large State hospitals, according to the Napa *Register.* He will be succeeded at Yountville by **Dr. Floyd I. Hohnstein,** now assistant chief surgeon. Dr. Williams, who is a psychiatrist as well as physician and surgeon, served four years as a commander in the Navy during World War II in charge of an Allied base hospital in French Morocco. Dr. Hohnstein also served in World War II for three and a half years in the South Pacific as a Navy commander.

PLACER-NEVADA-SIERRA

Resignation of **Dr. Michael F. Flately** from the medical staff at Napa State Hospital has been announced by Dr. Theodore K. Miller, superintendent of the institution. Dr. Flately for the past two years has been in charge of the tuberculosis unit at the hospital. Previously he was connected with the Weimar Sanitarium in Placer County.

SAN DIEGO

In a recent address to the local Community Welfare Council, **Dr. Sam J. McClendon,** then president of the California Medical Association, advocated a $200 million state fund to finance private hospital construction. Dr. McClendon proposed a constitutional amendment authorizing the loan fund, without which he said the state could not meet its minimum hospital needs.

The San Diego Department of Public Health and the San Diego Tuberculosis and Health Association are setting up a **Case Registry of all known cases of tuberculosis** in the county to provide, for administrative purposes, a complete and easily accessible record of all the vital facts about tuberculosis patients and contacts from the beginning to the end of their observation.

In the **management of individual patients** the register will be used to indicate the location and movement of patients at all times; to indicate changes in the diagnosis, form of the disease, clinical status, sputum status, and kind of supervision of patients; and to indicate deficiencies in the supervision of individual patients or contacts, or both.

For general administrative purposes the expected value of the register would be in improving cases reporting, helping in appraising the tuberculosis problem of the community, in evaluating the effectiveness of control measures, in planning and organizing additional activities, and in supervising and evaluating the work of public health nurses. It would also be an available source of information for **research** purposes.

SAN FRANCISCO

Dr. David A. Wood of San Francisco has been elected to the board of directors of the American Cancer Society. For the past year he has been secretary of the Cancer Commission of the California Medical Association and of the California division of the American Cancer Socicty.

The University of California Medical School, in association with University Extension, University of California, announces a course in the **Application of Nuclear Physics** to the Biological and Medical Sciences. To be given at the Medical Center in San Francisco from June 30 through July 18, 1947, it will consist of didactic lectures, laboratory demonstrations and seminars for roundtable discussions, and will be open to individuals in the fields of medical and biological research. Requests for dctailed information are to be addressed to Stacy R. Mettier, M.D., Head of Postgraduate Instruction, Medical Extension, University of California Medical Center, San Francisco 22, California.

A two-day sectional meeting of the **American College of Surgeons,** embracing California, Nevada, Arizona, Utah and Oregon, was held April 5 and 6 at the Fairmont Hotel, San Francisco. Chairman of local arrangements for the meeting was Dr. Frederick S. Foote, assisted by a committee including Drs. H. Glenn Bell, Everett Carlson, John W. Cline, G. Daniel Delprat, Anthony B. Diepenbrock, Sumner Everingham, Franklin I. Harris, William J. Kerr, Ray H. Kistler, Kirk Prindle, Dexter N. Richards and Anthony J. J. Rourke. **Dr. Howard C. Naffziger** of San Francisco, regent of the American College of Surgeons, presided at the meeting.

SAN JOAQUIN

Under the chairmanship of Dr. Don C. Harrington, the San Joaquin County Blood Bank Committee has undcrtaken the organization of a blood bank which will be patterned on those operating successfully in San Mateo and San Francisco. To be set up in Stockton, the blood bank will be **sponsored by the San Joaquin County Medical Society** along with other organizations.

SAN LOUIS OBISPO

Dr. George Watts Tape died March 11 of a cerebral hemorrhage at Shell Beach, California. Born at Highgate, Ontario, Canada, in 1865, Dr. Tape was graduated from Wayne University Medical College about 1890. He practiced mostly in Oregon and Washington before 1915. Since coming to California he had been engaged in the management of hotel spas at Arrowhead and Paso Robles.

SAN MATEO

Dr. Harold Marks of Tacoma, Washington, has been appointed superintendent of San Mateo County's Community Hospital. Dr. Marks was head of Doctor's Hospital in Tacoma until January 1.

SANTA CLARA

Dr. Mark Lewis Gerstle, Jr., a member of the Santa Clara Medical Association, who last year was discharged from the Navy with the rank of captain, is now established in the practice of psychiatry at 14 East 80th Street, New York City. Dr. Gerstle has also been appointed liaison psychiatrist to Mt. Sinai Hospital, New York; visiting psychiatrist and neurologist to thc New York Post Graduate Hospital and Medical School and assistant clinical professor of psychiatry and neurology at Columbia University.

SOLANO

The 250-bed **Vallejo Community Hospital** was taken over April 1 by Permanente Foundation from the Federal Works Agency. The hospital will be available to "all qualified physicians of the Vallejo area and their patients."

YUBA-SUTTER

Dr. Harold R. Hennessy, executive officer for the committee on professional relations, Council on Industrial Health of American Medical Association, has been honored with the title of Chevalier de l'Ordere de la Sante Publique of France. Dr. Hennessy, who was formerly director of the Sutter-Yuba bi-counties health department, received the medal and scroll of the order for his public health work in France during the war.

GENERAL NEWS

The resignation of Dr. Olin West, Nashville, Tenn., as American Medical Association president-elect has been announced by the board of trustees of the A.M.A. Dr. West, who retired because of illness, will bc succeeded by **Dr. Edward L. Bortz,** Philadelphia, A.M.A. vice-president. Dr. Bortz who will become president of the organization at its annual convention at Atlantic City in June, has been associate professor of medicine at the University of Pennsylvania since 1932. During World War II he served in the Navy.

Harofe Haivri (The Hebrew Medical Journal) which is dedicated to the continued growth of He-

brew medical literature, has concluded its 19th year of successful publication, under the editorship of **Moses Einhorn, M.D.,** of New York. Volumes I and II, 1946, contain, besides a number of scientific articles, a contribution by the editor of the impressions of his recent flying trip to Palestine. It was for Dr. Einhorn a visit to his old home, and he writes in detail on the many important changes that have taken place since his last visit.

The Committee on Fellowships and Awards of the **American College of Physicians** has awarded five additional Research Fellowships in Medicine for the year which begins July 1, 1947. Notifications of appointment have been sent to the following physicians: **Ward S. Fowler, M.D.,** Philadelphia, who will conduct studies of the pathological physiology of certain primary disorders, under the supervision of Dr. Julius H. Comroe, Jr., F.A.C.P., at the Graduate School of Medicine of the University of Pennsylvania; **Arnold Livingstone Johnson,** M.D., C.M., Montreal, Canada, who will continue his investigation of the hemodynamics of congenital heart disease in the Children's Memorial Hospital and the Department of Physiology, McGill University, under the direction of Dr. Alton Goldbloom and Professor H. E. Hoff; **Mary Ann Payne,** M.D., New York, N. Y. Dr. Payne will undertake at the New York Hospital, where she presently holds appointment as Assistant Resident in Medicine, studies of hepato-renal factors in regard to shock and hypertension. Her supervisors will be Dr. David P. Barr, F.A.C.P., and Dr. Ephraim Shorr; **Miriam Mellon Pennoyer,** M.D., St. Louis. Dr. Pennoyer will investigate adrenal function in newborn and premature infants at the St. Louis Children's Hospital, under the direction of Professor A. F. Hartmann of the Washington University School of Medicine; **Philip Franklin Wagley,** M.D., Baltimore. Dr. Wagley proposes to study certain mechanisms of hemolysis. These studies will be conducted at the Boston City Hospital, with the supervision of Dr. William B. Castle, F.A.C.P., and Dr. George R. Minot, F.A.C.P.

As a basic step in overcoming the acute shortage of registered nurses and other problems in the field, the National Nursing Council, representing 14 leading professional organizations, is undertaking an intensive **study of the registered nurse's real job** and the changes in education that she requires for it. The study is being financed by a grant of approximately $28,000 from the Carnegie Corporation of New York.

Recent announcement of plans to establish an eye bank at Stanford University Hospital, San Francisco, called attention to the growing impetus in the development of **The Eye Bank for Sight Restoration,** which was incorporated in New York only a little more than two years ago. A regional branch to serve the Middle West already has been set up in Chicago. Others are needed, according to Dr. Derrick Vail, writing in the American Journal of Ophthalmology. Dr. Vail's article states the **purposes of the organization**—the collection and preservation of healthy corneal tissue from human eyes for transplanting to blind persons who have lost their sight because of corneal defects; the training of young surgeons in the technique of this delicate operation; and the furtherance of research studies in this field.

Announcement has been made of the formation and election of officers of the **Los Angeles Society of Allergy,** a section of the Los Angeles County Medical Association. Officers for the year 1947 are Dr. George Piness, president; Dr. Willard S. Small, vice-president; Dr. Frank C. Crandall, Jr., Secretary-Treasurer. There is a council of five members who, with the officers, constitute an executive council.

Composed of active and associate members, the organization requires that all members, whether active or associate, be members in good standing of the Los Angeles County Medical Association. There is the further requirement that active members be certified diplomats of one or more of the following: (a) The American Board of Internal Medicine—Sub-Specialty Allergy, (b) The American Board of Pediatrics—Sub-Specialty Allergy, (c) The American Board for the Certification of Allergists, or a Fellow or Member of the American Academy of Allergy, or a Fellow of the American College of Allergists.

Plans are under way for a conference with executives of the California Physicians' Service and Veterans Administration at San Francisco in the near future to discuss and, if possible, secure approval of the **proposed fee schedule** for this State.

INFORMATION

The National Society for Medical Research

What it is

The National Society for Medical Research was organized in 1946 by the medical colleges, research hospitals, and other institutions interested in research in biology, medicine, dentistry, pharmacy, and veterinary medicine for the purpose of developing through organized effort a better public understanding and appreciation of the principles and methods of scientific investigation.

The Society came into being because, strange as it seems, the antivivisection cult was presenting a real and growing threat to continued progress in the biological sciences. The influence of the cult being possible only by virtue of public ignorance, the Society was established to advocate essentially complete and completely factual reporting of developments in the biological sciences.

Who its members and leaders are

The National Society for Medical Research is an association of institutions and associations, including in its membership nearly every national scientific organization in the United States. All medical colleges are members as are also such institutions as the Rockefeller Institute, the Mayo Foundation, and the Mellon Institute.

In addition to scientific organizations, several lay groups, such as the American Red Cross and the United States Junior Chamber of Commerce, are members. The Chamber of Commerce of the United States, by referendum vote of the membership, is a sponsor of the Society's program.

Officers of the Society are: Dr. A. J. Carlson, president, professor emeritus, University of Chicago; Dr. A. C. Ivy, secretary-treasurer, vice president in charge of Chicago Professional Colleges, University of Illinois.

Directors are Dr. R. B. Allen, University of Washington; Dr. Alfred Blalock, Johns Hopkins; Dr. C. S. Burwell, Harvard University; Dr. E. J. Carey, Marquette University; Dr. L. R. Chandler, Stanford University; Dr. W. C. Davison, Duke University; Dr. R. E. Dyer, National Institute of Health; Dr. H. S. Gasser, Rockefeller Institute; Dr. E. W. Goodpasture, Vanderbilt University; Dr. J. G. Hardenbergh, American Veterinary Medical Association; Dr. J. C. Hinsey, Cornell University; Dr. Victor Johnson, American Medical Association; Dr. C. D. Leake, University of Texas; Dr. E. M. MacEwen, University of Iowa; Dr. W. S. McEllroy, University of Pittsburgh; Dr. B. O. Raulston, University of Southern California; Dr. A. M. Schwitalla, St. Louis University; Dr. Isaac Starr, University of Pennsylvania; Dr. E. L. Turner, University of Washington; Dr. Floyd S. Winslow, Medical Society, State of New York.

What it does

The Society advocates among scientists an acceptance of responsibility for public understanding in the various fields of knowledge. This cause is maintained upon the premise that those who have specific knowledge must teach it or accept the blame for general ignorance.

The Society attempts to aid journalists, broadcasters, organization leaders, school teachers, and others who contribute to public education. The Society helps to obtain needed information and cooperation.

Direct opposition to the dangerous antivivisection cult is implemented by information gathered and released by the Society. In this connection it publishes a *Bulletin*. Sample items from the March issue:

> Wisconsin antivivisectionists have developed a new tactic. They have introduced a bill into the state legislature specifying that animals may be used for scientific experiments if not subjected to cruelty or torture. The apparent reasonableness of this proposal disguises its real purpose, which is to provide a basis for constant legal involvement and embarrassment of medical institutions. Varying definitions of cruelty and torture would make possible an endless procession of court cases, which would be successful from the standpoint of the AV's for their publicity and nuisance value even if every case were decided in favor of the medical institutions.
>
> A bill providing for state supervision of animal experimentation has been favorably reported out of committee in the New York State Legislature. The bill is misleadingly reasonable. The history of such legislation clearly shows that the principal effect is to provide a basis for countless hearings and investigations upon which antivivisection organizations depend for public attention and consequently for revenue.
>
> A pre-view of future antivivisection tactics was given in Chicago last week. Unable to maintain their ideological position after numerous public defeats, the antivivisectionists have been turning more and more to obstructionist tactics. The Chicago incident was the stopping of a truckload of dogs by an antivivisection leader armed with the authority of a humane officer. He illegally searched the

truck and placed trumped-up charges. The case was summarily dismissed in court. Nevertheless, the AV's had achieved their purpose. They had hobbled a research institution with a nuisance and inconvenience.

The *Bulletin* also carries from time to time a list of current pertinent articles appearing in newspapers and periodicals.

How it is financed

Financial support is obtained from medical colleges, scientific societies and commercial concerns operating research laboratories.

Headquarters

Headquarters of the National Society for Medical Research are at 25 East Washington Street, Chicago 2, Illinois.

Coming Medical Meetings

American Association of Genito-Urinary Surgeons, Absecon, N. J., June 4-6. Dr. Charles C. Higgins, 2020 E. 94rd St., Cleveland 6, Secretary.

American College of Allergists, Atlantic City, Hotel Senator, June 6-8. Dr. Fred W. Wittich, 401 LaSalle Medical Bldg., Minneapolis 2, Secretary.

American College of Chest Physicians, Atlantic City, June 5-8. Mr. Murray Kornfeld, 500 N. Dearborn St., Chicago 10, Executive Secretary.

American College of Radiology, Atlantic City, June 6-7. Mr. Mac F. Cahal, 20 N. Wacker Drive, Chicago 6, Executive Secretary.

American Dermatological Association, Murray Bay, Quebec, Canada, June 1-5. Dr. Harry R. Foerster, 208 E. Wisconsin Ave., Milwaukee, Wis., Secretary.

American Geriatrics Society, Atlantic City, Hotel Brighton, June 5-7. Dr. Malford W. Thewlis, 25 Mechanic St., Wakefield, R. I., Secretary.

American Heart Association, Atlantic City, Hotel President, June 6-7. Dr. Howard B. Sprague, 50 W. 50th St., New York, Secretary.

American Medical Association, Atlantic City, June 9-13. Dr. George F. Lull, 535 N. Dearborn St., Chicago 10, Secretary.

American Medical Women's Association, Atlantic City, June 7-8. Dr. Helen F. Schrack, 216 N. Fifth St., Camden, N. J., Secretary.

American Ophthalmological Society, Hot Springs, Va., June 5-7. Dr. Walter S. Atkinson, 129 Clinton St., Watertown, N. Y., Secretary.

American Proctologic Society, Atlantic City, June 7-8. Dr. Harry E. Bacon, 2031 Locust St., Philadelphia 3, Secretary.

American Radium Society, Atlantic City, June 8. Dr. Hugh F. Hare, 605 Commonwealth Ave., Boston 15, Secretary.

American Society for the Study of Sterility, Atlantic City, Hotel Shand, June 7-8. Dr. John O. Haman, 490 Post St., San Francisco 2, Secretary.

American Society of Clinical Pathologists, Atlantic City, June 4-8. Dr. Alfred S. Giordano, 531 N. Main St., South Bend, Ind., Secretary.

American Therapeutic Society, Atlantic City, Chalfonte Hotel, June 6-7. Dr. Oscar B. Hunter, 1835 I St. N.W., Washington 6, D. C., Secretary.

National Gastroenterological Association, Atlantic City, June 4-6. Dr. G. Randolph Manning, Room 319, 1819 Broadway, New York, Secretary.

Analbis Suppositories Recalled from Market

California's physicians are warned that analbis suppositories manufactured by the Specific Pharmaceuticals Inc., 331 Fourth Avenue, New York City, have been reported by the U. S. Food and Drug Administration to have been responsible for the deaths of approximately 14 children under six years of age.

The suppositories contain a bismuth compound associated with organic radical diallyl acetate which is designated on the label as heptadienecarboxylic acid in cocoa butter. Diallyl acetate has a direct effect upon the liver.

Analbis suppositories are distributed in two sizes, adult and child's. Directions supplied physicians, but separate from the package, stipulate that one-half the child's size suppository is to be used for children under six years of age and that more than two suppositories should not be administered in 48 hours. It is believed that the deaths are due to administration of these suppositories in amounts in excess of the directions.

On February 11, 1947, the manufacturer began a voluntary recall campaign requesting that dealers return all stocks. Up to March 25 approximately one-half of the stocks distributed since September had been returned and it is believed that there are considerable stocks in the hands of retail druggists, hospitals and physicians.

Any physician who may have analbis suppositories on hand is requested to return them to his druggist, wholesaler, or directly to Specific Pharmaceuticals Inc., 331 Fourth Avenue, New York City.

Rule on Carrying Narcotics Across National Borders

Under the provisions of the Narcotic Drugs Import and Export Act, it is unlawful for a physician to carry narcotic drugs in his medical bag back and forth between the United States and Mexico and between the United States and Canada. Narcotic drugs found in the possession of a physician upon returning to the United States are seized and forfeited. Because of lack of knowledge of the law many physicians are caused embarrassment and inconvenience when traveling between this country and Mexico or Canada. This information is published in order that physicians may be correctly informed with reference to this provision of the federal law.

Letters to the Editor . . .

PREVENTION OF TISSUE ANOXIA

A new method of preventing tissue anoxia is reported by Proger[1] and his associates of Tufts College Medical School, Boston, Mass. The method is based on their observation that under conditions of inadequate (10 per cent) oxygen pressure in the inspired air the venous blood contains 4-6 volumes per cent of available oxygen. The accompanying tissue anoxia is thus due largely to inadequate oxygen avidity of the fixed tissue cells. Theoretically, the addition of respiratory enzymes to the fixed tissues might increase oxygen consumption.

Early experiments[2] showed that intravenous, intraperitoneal or intramuscular injections of respiratory catalysts improve tissue utilization of oxygen in living animals. More detailed experiments were afterwards undertaken on both man and laboratory animals, using the most important intra-cellular respiratory pigment, cytochrome C. This respiratory catalyst was selected because of its easy isolation from the beef heart, and its chemical stability which makes it clinically utilizable. Preliminary tests showed that in its purified condition, cytochrome C is non-toxic and apparently non-antigenic for both man and laboratory animals.

Injected intravenously, in 350 mg. doses, cytochrome C is not excreted in human or canine. It is retained in effective concentration for at least five days where it is largely absorbed by the fixed tissue cells. In vitro tests show that it may increase oxygen consumption by the fixed tissues by as much as 100 per cent.

Such an increase is clinically effective. In both man and dogs the effects on the electrocardiogram produced by moderately severe anoxia (10 per cent oxygen) can be regularly prevented by previous intravenous injection of this catalyst. Patients who experienced subjective distress with this degree of anoxia were free from distress when they had been previously injected with this pigment. Cytochrome C has a moderately beneficial effect in angina pectoris but no immediate effect in acute myocardial infarction. This latter may be due to the fact that the total occlusion of the blood vessels makes it impossible for cytochrome C to reach the infarcted tissue.

Studies of certain cerebral functions have demonstrated that cytochrome C is effective in preventing many of the consequences of partial anoxia of the brain. The electro-encephalographic changes produced by 10 per cent oxygen can be largely prevented. The impairment of visual discrimination can be entirely overcome within about five minutes. Such complex cerebral functions as code transliteration can be strikingly influenced. The fatal irreversible state which usually follows severe hemorrhagic shock in dogs can be prevented when large doses of cytochrome C are injected a few hours after the hemorrhage.

From these and other experimental and clinical observations, Proger concludes that it is desirable to explore the possible clinical usefulness of cytochrome C in such conditions as Raynaud's disease, pulmonary emphysema, certain cerebral dysfunctions, and in various degenerative diseases associated with arteriosclerosis. A more detailed report of current clinical evidence is promised for the near future.[3]

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1. Proger, S. and Dekaneas, D.: Science, 104:389 (Oct. 25), 1946.
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BOOK REVIEWS

TEXTBOOK OF MEDICAL TREATMENT. By various authors. Edited by D. M. Dunlop, B.A. (Oxon.), M.D., F.R.C.P. (Edin.), M.R.C.P. (Lond.); L. S. P. Davidson, B.A. (Camb.), M.D., F.R.C.P. (Edin.), F.R.C.P. (Lond.); J. W. McNee, D.S.O., D.Sc., M.D. (Glas.), F.R.C.P. (Edin.), F.R.C.P. (Lond.). Fourth Edition. 1946. The Williams and Wilkins Company, Baltimore. Price $8.00.

In a consideration of therapy of disease, it is axiomatic that both the disease process and the patient affected should be considered. This textbook of medical treatment by 30 British authorities is particularly thorough in exploring the latter, the management of the patient physically and mentally relative to his illness. As this aspect of therapeutics has been much neglected in our American texts on treatment, the British book would seem valuable to complement the American and to make up this deficit. Noteworthy consideration of general management of the patient is found in the sections on asthma, peptic ulcer, chronic rheumatic disease and heart disease. A careful evaluation of the position of psychiatry in general medicine is included.

Consideration of specific treatment suffers from the same disadvantage as in all major works on therapy, which can hardly be up to date when published in our present period of rapid advance. It is nevertheless distressing to find no mention of streptomycin, of folic acid therapy, of BAL in arsenic poisoning, of radio-active phosphorus in polycythemia vera and penicillin in treatment of agranulocytosis and Vincent's infection, to mention a few.

Typical British resistance to change is noted in continued advocation of purges in a variety of conditions and of such old remedies as cantharides blisters. In the section on cardiology are several recommendations which run contrary to experience in this country: *e.g.* the routine use of tincture of digitalis rather than more stable preparations, the intravenous administration of mecholyl, and the exhibition of quinidine in fixed dosage for days in auricular fibrillation in spite of lack of conversion to normal rhythm.

The book may be recommended, and chiefly for its well balanced attack on disease from all therapeutic aspects and for its elegant and most readable style throughout.

* * *

THE MANAGEMENT OF TUBERCULOSIS IN GENERAL HOSPITALS. By the Council on Professional Practice of the American Hospital Association. Paper edition 50 cents. Cloth $1.00. Available through the American Hospital Association, 18 East Division Street, Chicago 10, Illinois.

This little booklet should be widely read by all those interested in hospital management. It is an attempt to present the latest knowledge and methods of the tuberculosis problem as it occurs in general hospitals. Unfortunately, there has been a tendency in recent years to eliminate the tuberculous patient or ex-patient from general hospitals on the ground that he serves as a source of infection to hospital personnel and other patients. Yet, the increasing tendency for phthisiologists is to use collapse procedures which require hospitalization in general hospitals for a longer or shorter period. A factor which has made the problem more acute is the tendency to take routine x-ray films on all hospital admissions which brings to attention both active and healed tuberculosis. Occasionally the patients are ordered to leave at once. Cases have been reported to the reviewer of patients who have been given 24 hours to leave the hospitals on the basis of a positive x-ray diagnosis without an attempt being made to determine the presence or absence of positive sputum and the like.

The booklet under review points out how antiquated and impractical is such an attitude on the part of any hospital administration. It points out how tuberculosis patients may be admitted to general hospitals in such manner that hospital employees and other patients may be safeguarded from infection. Under Chapter 4, entitled "An Inclusive Outline for a General Hospital Control Program," the technique of isolation is described in detail. Certainly it should be realized by all concerned that tuberculous patients or ex-patients suffer ills to which flesh is heir, that they require surgical operations as often as anyone else and that they must be adequately provided for. The problem is urgent, the remedy is simple. It is to be hoped that the recommendations in this booklet will be widely applied by the majority of general hospitals.

* * *

INTRACRANIAL COMPLICATION OF EAR, NOSE AND THROAT INFECTIONS. By Hans Brunner, M.D., Associate Professor of Otolaryngology, University of Illinois College of Medicine, Chicago. Pp. 444. The Year Book Publishers, Inc., 304 South Dearborn Street, Chicago. 1946. Price $6.75.

This book, as the title implies, is one which was written primarily for the specialist in otorhinolaryngology. It could possibly interest the neurologist or neurosurgeon only if he were concerned with the otolaryngologist's point of view. It is definitely not a treatise that would intrigue the general practitioner.

The book is divided into two sections. Section I includes the anatomy and physiology of the dura mater, the sinuses of the dura mater, the pia arachnoid, the intermeningeal spaces, the cerebrospinal fluid and the anatomic relationship between nasal and paranasal cavities and the brain.

Section II, clinical aspects, deals with inflammatory diseases of (1) the dura mater, (2) the dural sinuses (3) the leptomeninges, brain abscess and encephalitis.

The anatomy of the meninges and the sinuses of the dura mater with their important relations to the temporal bone, and to the nasal accessory sinuses and the nose is given in great detail and is probably the most valuable part of the book.

Of the congenital anomalies, the important nasocephaloceles are described. Nothing is mentioned,

however, of pneumoencephaloceles with nasal or sinus fistulas, many of which were seen following gunshot wounds during the war. This omission by the author was undoubtedly intentional since his title indicates intracranial complications of infections. However, inclusion of the traumatic complications could have made an instructive chapter.

In his discussion of a particular intracranial structure (e.g., inflammatory diseases of the dura mater), the author goes into considerable detail to outline the variations in pathology with otogenous and rhinogenous infections, the symptomatology, the prognosis and the treatment.

The difficult problems of petrositis and osteomyelitis of the frontal bone are given good coverage, but some of the methods of treatment proposed within the last two decades have been excluded. It is natural that the author stresses the methods he prefers, but there may be some readers who would like to know the reasons for eliminating some procedures in favor of others.

Those particularly interested in the problems of phlebitis and thrombophlebitis of the various dural sinuses will find this subject, including many diagnostic tests, reviewed in detail.

A conscientious effort has been made by the author to be helpful in the diagnosis of otogenous and rhinogenous brain abscess. It is to his credit that he has emphasized the value (often overlooked) of early examination of the visual fields in suspected temporal lobe abscess and of the aphasias, especially nominal, in suspected left temporal lobe abscess.

The volume is well printed on good paper. There are many excellent illustrations, but there are also a number that are not readily followed.

The work, on the whole, has definite value, and, as a reference book for the otolaryngologist, can be recommended.

* * *

CHILD AND ADOLESCENT LIFE IN HEALTH AND DISEASE. By W. S. Craig, B.Sc. (Glas.), M.D. (Ed.), F.R.C.P.E., F.R.S.E. With a Foreword by Professor Charles McNeil, M.A., M.D., F.R.C.P., F.R.C.P.E., F.R.S.E. The Williams and Wilkins Company, Baltimore, 1946. Price $7.00.

This title does not convey the rich contents of the book for this is the story of the development of child care and training and welfare work in England. It is of necessity brief since a complete history of this subject could not be given in 500 to 600 pages. The items covered, however, are portrayed in such an interesting manner and so many highlights touched upon that in its own sphere it is as satisfactory a picture as is a legitimate play wrought of a complete novel.

In the preface the author states, "Study of the past reveals how at first the community was less concerned with affording children protection than with safeguarding itself from the excesses of vagrant and homeless youth." The book then describes the advancement by legislation, medical education, public and private education, and welfare agencies of the growth and development of the modern concept of the care of the child physically, emotionally and mentally in health and disease. The book is illustrated by copies of early prints, pictures and paintings, illustrations and photostatic copies of early pediatric texts. Part 4 gives a list of legislation relating to child and adolescent welfare. This alone covers some 100 pages. The appendix lists hospitals and institutions by size and age of children cared for and finally there is a chronological list of some of the outstanding events and periods, showing the growth of social pediatrics.

The book is not only fascinating reading but it gives extremely valuable information. It should be especially inspiring to pediatricians who at this time are nearing the completion of the first part of the Study of Child Health Services in United States. Dr. Craig, using a different method, namely that of an entire book, has attempted to bring up to date the Child Health Services in England. Again quoting from his book, "Success in this will be achieved only if sectional interests are discarded and if all who are in any way concerned with child life and health pool their experience and endeavor. . . . The present day picture of the provisions for the care of child life and health can be compared to an unfinished jig-saw puzzle. Each piece of the puzzle has its own historical background. Many have been pieced together to form a recognizable part of the picture. The puzzle has not, however, been completed. Isolated pieces remain to be properly placed. Others have been dubiously inserted. Some are missing."

The renewed interests in child health and development both in England and United States undoubtedly stem from the same deep feeling in both countries that the improvement, if not the survival of the human race depends upon the attention given to the rearing of our children. A similar historical survey of the development of pediatrics and legislation regarding health of children, as well as the many private institutions that have aided in child welfare in this country, could serve as an excellent background for the Study of Child Health Services now in progress in the United States.

* * *

HYPOMETABOLISM. By Esben Kirk, M.D., Chief Physician, Medical Department, Holstedbro District Hospital, Holstedbro, Denmark, and Sven Ancher Kvorning, M.D., Assistant, Pharmacological Department, University of Copenhagen; Former Resident Physician, Medical Department, Holstedbro District Hospital, Holstedbro, Denmark. 1946. Einar Munksgaard, Publisher, Copenhagen, Denmark. Price: Dan. Cr. 7.25.

This eighty-three page monograph is a detailed study of three hundred and eight cases admitted to a District Hospital in Jutland (Denmark), all having a basal metabolic rate of minus 12 or below. A group of 190 patients with normal metabolic rates was studied as a control. The authors have classified their material under five headings (and 16 sub-headings) into: (1) Genuine Myxedema, (2) Reduced Activity, (3) Undernutrition, (4) Hypogonadism, and (5) Undetermined.

The presence, or absence, of some 26 signs and

symptoms in the patients studied and the normal controls is shown in considerable detail in 27 tables. The objective and subjective effect of thyroid administration is reported, and as expected, it was found to be most effective in the group of "Genuine Myxedema." The authors report that 11 of their cases which showed "hypometabolism" had been treated from 10 to 35 years previously for Graves' Disease.

This is a meticulous but, to this reviewer at least, it seems a sterile piece of clinical research. It is a laborious compilation of the symptoms in a group of patients who have in common a low metabolic rate. It contributes nothing new to our knowledge in that the only conclusion drawn is that a low metabolic rate does not always indicate hypothyroidism and therefore all such patients are not subjects for thyroid administration.

* * *

A GUIDE FOR THE TUBERCULOUS PATIENT. By G. S. Erwin, M.D., Medical Superintendent, Liverpool Sanatorium, Frodsham, Cheshire, and Henry C. Sweany, M.D., Medical Director of Research, Municipal Tuberculosis Sanatorium, Chicago. Grune & Stratton, New York. 1946. Price $1.50.

The need of the patient with tuberculosis for education in regard to the things he must do in order to get well and, not less important, to stay well, is universally recognized. Neither the doctor nor the nurse can take the time to do this verbally in all its phases. Early in the century a number of books written for the patient were published, that of Lawrason Brown having had the greatest popularity. It was brief and authoritative. A number of excellent texts have been written since. In some cases their success has been limited because of their bulk and because they too often went into detail about the possible complications. The result on the patient was somewhat similar to the legendary medical student who suffered in turn from most of the diseases as he studied them.

This little book combines in an unusual degree brevity and good sense. It also conforms to two essential requirements: it is written in a manner which will not arouse the patient's apprehensions about possible complications, and it presents an optimistic view without departing from scientific accuracy.

There are a few English colloquialisms which have not been corrected in the editing. For example, the term "screening" to denote fluoroscopy has long since fallen into disuse in this country, and has recently come to be used in an entirely different sense in connection with mass surveys.

As rest is still the basic factor in all our treatment, it is to be regretted that more space has not been devoted to a consideration of what is involved. The term is a simple one, but in practice its application becomes extremely complicated. It cannot be assumed that the patient will have constantly in mind the many modifications and degrees of rest before he leaves the sanatorium. Many patients cannot have the benefit of prolonged, or any, sanatorium training, and in any event instruction of their families is of great importance during the period of convalescence after their return home.

In the light of our present knowledge, one may question the dogmatic statement that "scientific research has shown that patients are in no way benefited in their ability to fight the infection by bringing the amount of vitamin C (in the blood) up to the level of normal health."

The dictum that the patient must always cough into his hand or handkerchief will be viewed with emphatic disfavor in this country, where patients are instructed to use only tissues (toilet tissues are quite satisfactory) for this purpose, and the use of the handkerchief or bare hand is considered highly dangerous.

Covering the dishes with boiling water for a few minutes would appear to be very inadequate for sterilization.

The wisdom of quoting the disappointing figures of only 60 per cent of discharged patients being alive five years after leaving the sanatorium, and 50 per cent of the patients never being fit for full competitive work in industry, is open to question, as is also their accuracy under present day treatment.

Despite these faults this is a very excellent handbook for the patient and his family, and is to be highly recommended. It is to be hoped that the publishers will shortly issue it in a more durable binding.

* * *

UTERINE CONTRACTILITY IN PREGNANCY. By Douglas P. Murphy, M.D., F.A.C.S., Assistant Professor of Obstetrics and Gynecology, and Research Associate in the Gynecean Hospital Institute of Gynecologic Research, University of Pennsylvania. J. B. Lippincott Company, Philadelphia. 1947. Price $5.00.

The author has presented the first complete scientific study of uterine contractions in pregnancy and labor under normal and experimental conditions. Many clinical observations have been confirmed. Based on 3,154 records of uterine contractions with the tocograph, the evidence has been divided into six sections, the last being an excellent discussion and summary.

The instrument used was first described by Lorand in 1933. It consists of a set of levers enclosed in a metal box only slightly larger than a deck of playing cards. The tocograph is held in place over the abdomen by an electric cord, with the patient lying on her back. The impulse is carried to a linear graphic record which records the oscillations on the kymograph. This method has the advantage of simplicity and the making of a permanent record. There is no danger of infection as with the intrauterine methods, and the possibility of a false stimulation as in the use of a balloon has also been eliminated. There is no discomfort to the patient. The instrument does not record maternal respiratory movements or pulsations of the aorta. Vaginal and rectal examination and catheterization, as well as lateral movement of the patient, does not affect the graph. Laughing, coughing, sneezing and movements of the body as a whole naturally cannot be eliminated.

The tocograph measures primarily the hardness of the uterus. As the uterus contracts the writing lever records a curve and in spite of thick abdominal walls, there is no appreciable error in the recording of the motility of the uterus or the fetus.

Fetal movements, as shown by this instrument, are of two types: those of the trunk and those of the extremities. The earliest that these movements have been demonstrated has been the 130th day of gestation. Of practical significance is the fact that failure to record movement of the fetus for 90 minutes, once it has been observed, is quite definite evidence of fetal death.

There are three periods of uterine activity in pregnancy as follows.

1. The quiescent period (the first 20 weeks of gestation).

2. The non-rhythmic period, from the 21st to the 38th week inclusive.

3. The rhythmic period, the 39th and 40th weeks.

During the first period activity is infrequent and weak. In the second period there is a great increase as to the time of occurrence, strength and duration, but the irregularity of contractions is most predominate feature. The third period is one of rhythmic activity. Contraction patterns of individual patients vary greatly, but they also are characteristic of the individual. While contractions become evident at the 21st week with the exception of the 37th and 38th weeks, they increase as the pregnancy advances. At the 32nd and 39th week there is a very marked increase in their strength.

Murphy's observation on posterior pituitary solution, estrogenic substance and morphine tend to bear out the clinical observations which have usually been recorded.

With the use of pituitary solution, the normal contractions are exaggerated and the amount of the drug which causes a clonic state and that which causes a tetonic contraction is very small. In the presence of increased tone the action is more forceful and also more apt to produce too strong and prolonged contractions. The dosage for stimulation of uterine contraction is 1 minim or less.

Extrogenic substances may produce increased motility, but the reaction is extremely variable. Morphine seems to diminish the frequency of contraction and gives the muscle a chance to rest which bears out the practical application of its use in prolonged labor.

Observations on inertia in labor, as well as disproportion, are facts which now are backed by a rather extensive observation of the behavior of the uterus in the last months of pregnancy and in labor.

This book has correlated a great amount of information in a very concise manner, and for the obstetrician who is interested in the relationship of uterine contractions to various conditions occurring in pregnancy and labor, a ready reference is now available. The use of various analgesias as they affect labor was not discussed, but undoubtedly this would be a valuable addition to the information obtained by the tocograph.

* * *

OFFICE ENDOCRINOLOGY. By Robert B. Greenblatt, B.A., M.D., C.M., Professor of Endocrinology, University of Georgia School of Medicine; Director, Endocrine Clinic, University Hospital, Augusta, Georgia. With a foreward by G. Lombard Kelly, M.D., Dean, University of Georgia School of Medicine. Third Edition. Charles C. Thomas, Publisher, Springfield, Illinois. Price $4.75.

The Third Edition of this growing book covers the entire field of office endocrinology with the exception of Diabetes Mellitus and does it clearly, simply and concisely in 46 short chapters and 280 pages. The print is large and can be read rapidly. Hormone physiology is simply and briefly but adequately described, thus presenting a rationale for endocrine treatment based on experimental physiology when one exists.

The vast field of empiricism in endocrinology is also thoroughly treated and so labeled. Treatment recommendations are definite as to dosage and schedule. This is an interesting and useful book which is certain to provide its readers with some new ideas in endocrinology. It covers the entire field, from acne to sterility. It is well illustrated. Diagnostic and treatment techniques are well described. It is to be commended particularly for its simplicity and brevity and yet completeness.

MEDICAL JURISPRUDENCE

APPLICATION OF STATUTE OF LIMITATIONS IN A MALPRACTICE ACTION

PEART, BARATY & HASSARD, *San Francisco*

A recent California case may be of interest to the medical profession because of the fact that the court discussed the extent to which a doctor must make full and fair disclosure to his patient of facts affecting a patient's physical condition. In 77 A.C.A.—885 (Jan. 27, 1947), the California District Court of Appeal had to determine whether or not a plaintiff patient had stated facts sufficient to constitute a cause of action against the defendant, Dr. M. It should be noted at the outset that the District Court of Appeal did not have before it the question of whether or not the doctor had been guilty of malpractice, but only the question of whether or not the plaintiff had alleged facts in his complaint sufficient to permit a trial by the Superior Court on the ultimate question of liability. In this case the District Court of Appeal had to construe Section 340, Subdivision 3, of the California Code of Civil Procedure which provides for a one year period of limitation for the commencement of an action for injury by the negligence of another. In his complaint plaintiff alleged the following facts as giving rise to the case: On August 6, 1941, plaintiff went to the defendant physician and requested him to remove a steel sliver from plaintiff's arm, and to treat the resulting wound. In the course thereof, x-ray equipment was used, and plaintiff alleged that as a result thereof plaintiff's arm was burned and injured and a cancerous growth started to form in the tissues thereof. Plaintiff alleged further that Dr. M., the defendant physician, told the plaintiff that there had been too much heat applied to the arm, but that there was nothing wrong with it and not to worry. In his complaint plaintiff further alleged that for a period of approximately one month Dr. M. continued to treat the plaintiff's arm, but still did not disclose to the plaintiff the true condition of his arm. Plaintiff patient then alleged in his pleading that he continued to go to Dr. M. until November, 1943. Thereafter, plaintiff sought and secured medical attention and treatment from other physicians and surgeons, who, he alleged, informed him that the failure of the arm to heal was caused by the cancerous growth which had formed in the tissue, and not by the steel sliver.

As a defense to the action the defendant physician pleaded that the action was barred by the statute of limitations in that the plaintiff first received treatment on August 6, 1941, and did not bring an action until more than one year after that date had passed. The court ruled against this defense on the facts alleged and held that the plaintiff's cause of action did not accrue until November of 1943, the time when plaintiff's treatments by the defendant ceased. The appellate court stated in its opinion that in this case the true opinion of plaintiff's arm had allegedly been concealed from him by fraudulent acts and statements of the defendant physician, and, therefore, plaintiff's cause of action did not arise until plaintiff became aware of the fraud. Because of the relationship between the parties, as physician and patient: "it was the duty of the physician to make a full and fair disclosure to the plaintiff of all facts which materially affected his rights and interests." The court said that, "defendant having failed to discharge his duty of making full and fair disclosure in addition to having made false and misleading representations which at most amounted to a partial disclosure, he will not be heard to say that plaintiff was negligent in relying on the assumption that, had there been anything further to disclose in connection with the nature or extent of the injury, he would have disclosed it." The Court held that where there is a duty to disclose, "the disclosure must be full and complete, and any material concealment or misrepresentation will amount to fraud sufficient to entitle the party injured thereby to an action." In conclusion the Court stated that, "by conduct which has the effect of preventing the injured party from consulting other physicians and thereby becoming aware of the true facts, the defendant has for all practical purposes hindered him from bringing an action until the period of limitations has expired." The court held, therefore, that on the facts alleged the action was timely after discovery of the alleged fraud and that the trial court erred in sustaining the demurrer to the fifth amended complaint. As a result of this ruling the case was sent back to the Superior Court where the questions of negligence and whether the physician did or did not make a full and complete disclosure will be at issue.

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Roentgenology in Chronic Mastoiditis*

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DIAGNOSTIC problems and procedures with which the otologist and the radiologist are confronted in chronic mastoiditis differ from those in acute cases. In acute mastoiditis the disease is localized in the air cells of the pneumatic system. These areas are easily accessible for roentgen examination. A simple lateral radiograph of the mastoid taken in conventional way in Law or Schuller's position may answer with accuracy the basic questions: (1) Is mastoiditis present or not? (2) What is the precise anatomic structure of the mastoid?

The first answer serves to establish the specific damage in a specific location. The second comes up in connection with indication, planning and execution of an operation and with prognostic considerations. Any additional information the otologist needs may be obtained from the history of the patient, from clinical examination and from otoscopic findings.

In chronic mastoiditis, however, which is the sequel to an unarrested acute infection, the main interest is concentrated on the structure of the middle ear and its accessory spaces: the mastoid antrum, the aditus ad antrum, the epitympanic recessus (attic) and posterior wall of the external auditory canal. These complicated areas are not visible in conventional lateral views because their longitudinal axis is situated in the angle of incidence of the x-ray beam, and because in lateral projections, the shadow of the dense structure of the bony labyrinth covers those parts of the middle ear the demonstration of which would be particularly desirable. (Fig. 1.) Such a structure is for instance the epitympanic recessus (attic). Using lateral radiographs only, the basic question—Is a cholesteatoma present or not—can only be answered when the cholesteatoma has reached considerable size, causing extensive bone destruction. Small cholesteatomas are not visible in lateral views. Such views also will fail to give information on precise outlines of any cholesteatoma, even if it is large enough to be visible. In many chronic cases, sclerosis obscures or completely blanks out all details. This is why some physicians have gone so far as to say that the x-ray examination gives no help at all in chronic cases, and that attempts to demonstrate and to interpret the intricate structures of the middle ear can only be of academic value. Further, it was their belief that the problem of whether a chronic case had to be considered surgical or nonsurgical had no support in radiological studies in contrast to the acute cases where the problem of surgical intervention was greatly facilitated by x-ray examination.

Many attempts have been made to visualize the structures of the middle ear. E. G. Mayer of Vienna succeeded in elaborating an "axial view" of the temporal bone (Otologishe Roentgendiagnostic, J. Springer, Wien, 1931) which reveals clearly the essential bone structures of the middle ear and its accessory spaces. However, his method received very little attention because technically it was difficult to master, requiring not fewer than five angulations of the head of the patient and of the x-ray tube. Furthermore, an unusual new oblique plan was used in his projection which made the interpretation of normal and pathological appearances of the mastoid on the radiographs difficult. Added difficulties were caused by frequent variations of the anatomical structures and of radiological projections of the middle ear. Departures of the x-ray beam or of the angulation of the head of the patient by not more than a few millimeters or degrees of that required, often confused the radiographic image to such an extent that it could hardly be analyzed.

* Read before the Section on Radiology at the Seventy-fifth Annual Session of the California Medical Association, Los Angeles, May 7-10, 1946.

** Associate Clinical Professor of Otolaryngology, Stanford University School of Medicine, San Francisco.

† Assistant Professor of Radiology, Stanford University School of Medicine, San Francisco.

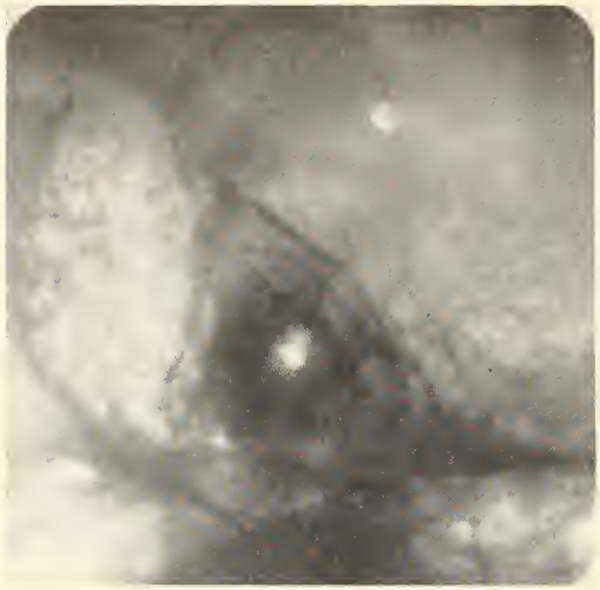




Figure 1.—Normal mastoid in lateral (Law's) position with well developed normal pneumatic system. Cells are clear and regular. Tegmen and sinus are in normal position; posterior wall of mastoid (pw), area of tegmen (t), petrous apex (a), head of the mandible (m). Epitympanic recessus, meatus ad antrum, mastoid antrum are not seen in this position.

CHAIR CONSTRUCTED TO SIMPLIFY TECHNIQUE

Impressed by the necessity to simplify the technique of the axial view and to provide a possibility for uniform positioning, we constructed for our own use a chair, in which the position for the skull is pre-arranged in a 45 degree rotation and which provides a fixed head rest at a 60 degree angle from the horizontal plane. The x-ray tube is also fixed in horizontal position and the beam is directed perpendicularly in a plane connecting the outer margin of the orbit of the side not examined with the mastoid process being examined. This chair (Fig. 2) has been in successful use in Stanford Hospital for several years. We constructed it for ourselves but we can recommend it for anyone who is interested in using axial views of the temporal bone, since it greatly simplifies the technique and permits the taking of uniform radiographs.

Radiographs obtained in this position are similar to Mayer's axial views. They demonstrate the antrum in its largest extent, the walls of the external auditory canal, the lateral wall of the attic, the meatus ad antrum, parts of the tympanic cavity, and frequently the ossicles. In brief, all those details which are essential in chronic mastoiditis but are not seen in the lateral views, are now made visible. (Fig. 3).

Many cases of chronic or recurrent discharging ears and attic suppurations puzzle the otologist. It is at times hardly possible for him to differentiate the chronic middle ear and tubal infection (chronic or recurrent) from primary disease in the antrum and attic. Without adequate radiological help, obtainable only by a correct axial view, he is often compelled to wait for the occurrence of complicating signs and symptoms, and is exposed to the possibility of overlooking dangerous bone necrosis and cholesteatoma. Sometimes erring on the side of conservatism, the otologist, without roentgen



Figure 2.—Simplified position for radiography of the mastoid in axial view. Angulation of head at fixed headrest 60° from the horizontal plane. Rotation toward the side being examined 45°, x-ray beam directed perpendicularly in the plane connecting the outer margin of the orbit of the side not examined with the mastoid process being examined.

findings, has to defer the operation until danger signs appear, or intracranial disease has insiduously developed. In such cases, permanent loss of hearing may result. This might have been prevented had an adequate roentgen examination disclosed the nature of the specific damage and its location.

If the radiologist incorporates in his inventory the axial projection, he should be able to visualize with three standardized views the structures noted in Table 1.

Table 1 shows that the three standard views—

namely, lateral, axial and anterior views—will be in most instances satisfactory for radiological demonstration of normal and pathological conditions of the mastoid.

TABLE 1.

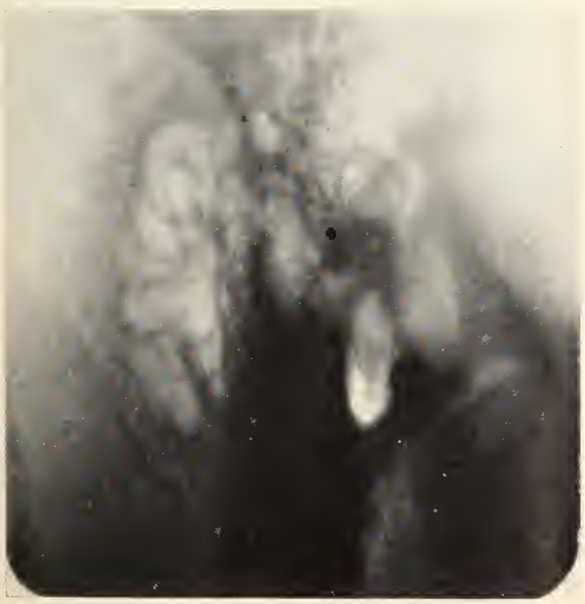
	Technique to Be Used
1. Pneumatic system as a whole, degree of development, precise outlines, structure of cells.	Lateral views (Law's or Schuller's position).
2. Air cells in typical and atypical localization, isolated cells, unusual extensions, tegmen, jugular bulb, sinus plate, emissarial vein.	" "
3. Air content of cells, structure of nonpneumatized bone.	" "
4. Mastoid antrum and periantral area.	Axial views (Mayer's or Stanford).
5. Lateral wall of the attic.	" "
6. Meatus ad antrum.	" "
7. Posterior and anterior wall of the external canal.	" "
8. Tegmen antri and tympani.	Anterior views (Stenvers).
9. Bony labyrinth.	" "
10. Internal auditory canal.	" "
11. Petrous apex.	" "
12. Ossicles.	Submental view of the base of the skull.
13. Hypotympanon and bony part of the Eustachian tube.	" "

In acute and subacute diseases, our routine technique consists of stereoscopic lateral views of both sides taken in Bullit's machine. In chronic diseases or in malformations, axial views of both sides are added. In diseases of the labyrinth or of the petrous apex, including the internal auditory canal, Stenvers' views are taken of both sides.

RADIOLOGICAL HELP IMPERATIVE IN SOME CASES

Many cases of chronic conditions of the mastoid can be differentiated clinically and analyzed without radiological examination. These are cases with a large dome-like area of destruction in the attic. This may be cleaned out or it may periodically spontaneously discharge a cholesteatoma. Other areas, however, with a smaller area of destruction in the attic may have or may not have cholesteatomatous extension. A necrotic cavity may be present in the attic or antrum without cholesteatoma. In such cases radiological findings of the middle ear are of the utmost importance. Specifically in cases of cavities having a bottleneck outline through a small attic perforation one may be confronted clinically with considerable difficulties if there is no radiological help. In such instances the axial view gives information about an area which has been a blind area from the clinical approach or from the radiological viewpoint. A long series of such cases studied at Stanford Hospital during the past years proved to us the indispensability of axial views in chronic conditions.

The only unequivocal roentgen evidence of chronic inflammatory conditions of the middle ear is the demonstration of the presence of bone destruction. All other single signs or combinations of several signs are of limited value. This is due to the fact that disturbances in development of pneumatization greatly influence the structure of air spaces and also the appearance of non-pneumatized



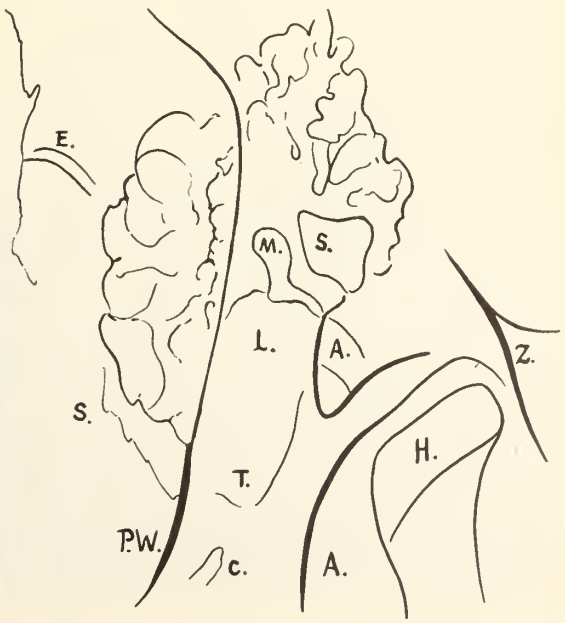


Figure 3.—Normal mastoid in axial view. Mastoid antrum (m), lateral wall of attic (a), zygomatic root (z), head of mandible (h), tip of mastoid (t), labyrinth (l), emissarial vein (e), occipito-mastoidal suture (s), internal auditory canal (c), sclerotic area between pneumatic cells (s).

bone. In conjunction with these disturbances, the mucosal lining of pneumatic cells and of the antrum becomes hyperplastic, decreasing the air content of cells in a similar way as does inflammatory edema or exudate. Moreover, the bone structure may be dense and sclerotic. Dense bone lamellae overlying pneumatic cells may cause them to appear cloudy and less translucent in radiographs even if their air content is normal.

Experience shows that not all types of inflammation cause bone destruction in the middle ear. Simple or catarrhal inflammatory changes remain isolated within the mucous membrane and do not destroy bone tissue. Bone changes only occur when the mucous membrane is replaced by squamous epithelium, and the desquamative form of chronic mastoiditis develops. The epithelium originates in such cases from the external canal and grows into the middle ear spaces through openings of the drum. The squamous epithelium furnishes the matrix of the cholesteatoma. Its subepithelial connective tissue, which is similar in structure to the corium of the epidermis, activates osteoclasts which destroy bone lamellae by means of Howship's lacunes.

Considering these limitations, our experience on the roentgen appearance of the middle ear in chronic inflammatory conditions may be summarized as follows:

1. Chronic inflammatory changes in the mastoid antrum can be established by means of roentgen rays only by the demonstration of pathological enlargement of the cloudy antrum, or by the progressive fuzziness of its outlines.

The normal mastoid antrum of adults appears in axial views like a small oblique chain of translucent areas situated just laterally to the labyrinth. If the development of pneumatization is disturbed, the antrum may remain infantile, namely, large. Normally the antrum contains air and is clear on radiographs. In inflammatory conditions, however, exudate and/or thickened membrane replaces the air content of the antrum and it becomes cloudy. A cloudy antrum may also be produced by disturbances of pneumatization associated with sclerosis of bony structures.

When outlines of the antrum become fuzzy, the presence of the desquamative type of inflammation and of early bone changes has to be expected. As mentioned above, the squamous epithelium of desquamative inflammation furnishes the matrix of the cholesteatoma. Consequently fuzzy outlines of a cloudy antrum indicate in most instances, early cholesteatomatous changes. Later the antrum becomes filled by products of the disintegrating cholesteatoma. Partly by pressure of this debris and partly by active bone destruction due to osteoclastic activity, it becomes progressively larger and at the same time, the borderlines become sharp. Then a dense shadow occurs around the sharp borderlines of the cholesteatoma cavity indicating reparatory tendencies of the bony capsule of the cholesteatoma. The lateral wall of the cholesteatoma shown in radiographs is characteristically concave. The concavity is directed toward the lumen of the antrum.

2. With further growth of the cholesteatoma, adjacent bone structures may become involved into the destruction.

The meatus ad antrum, the bony duct connecting the antrum with the attic, is affected early and becomes wider by bone erosions. This is recognizable on radiographs. (Fig. 4).

3. Destructive bone changes may progress from the antrum and the meatus into the attic. Or it may be that extensions simultaneously progress to the posterior wall of the external canal as well as to the attic. The first radiological sign of the presence

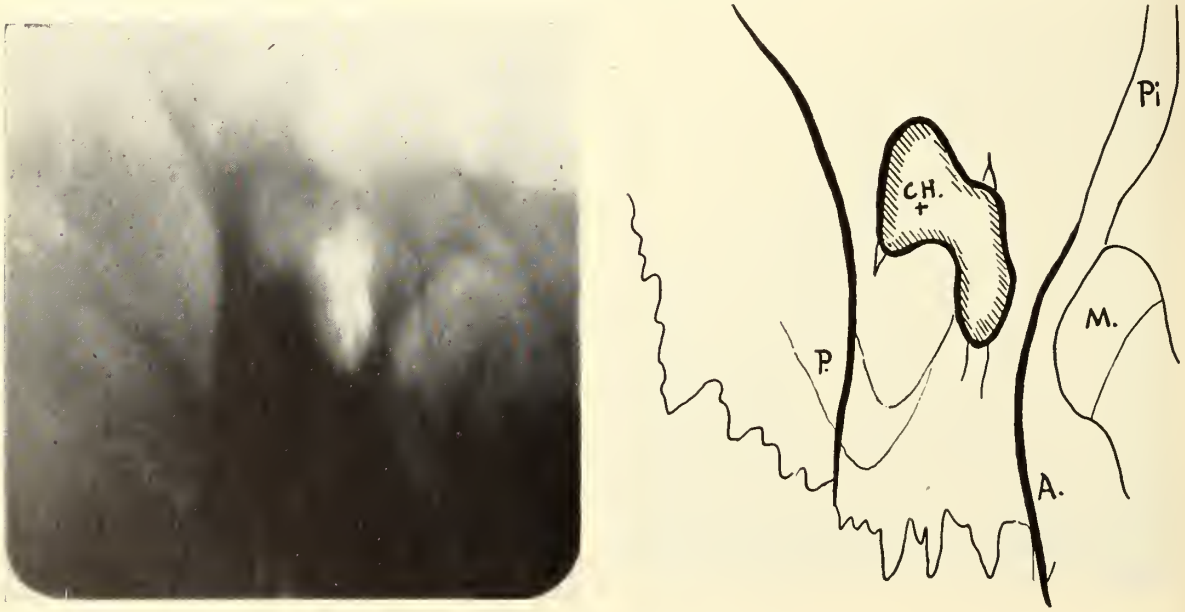


Figure 4.—Chronic otitis with cholesteatoma of antrum. Complete absence of pneumatic cells. Destruction of posterior wall of external auditory canal and of lateral wall of attic; cholesteatoma cavity (ch), posterior outline of petrous bone (p), head of mandible (m), anterior outline of petrous bone (a), pinna (pi), axial projection.

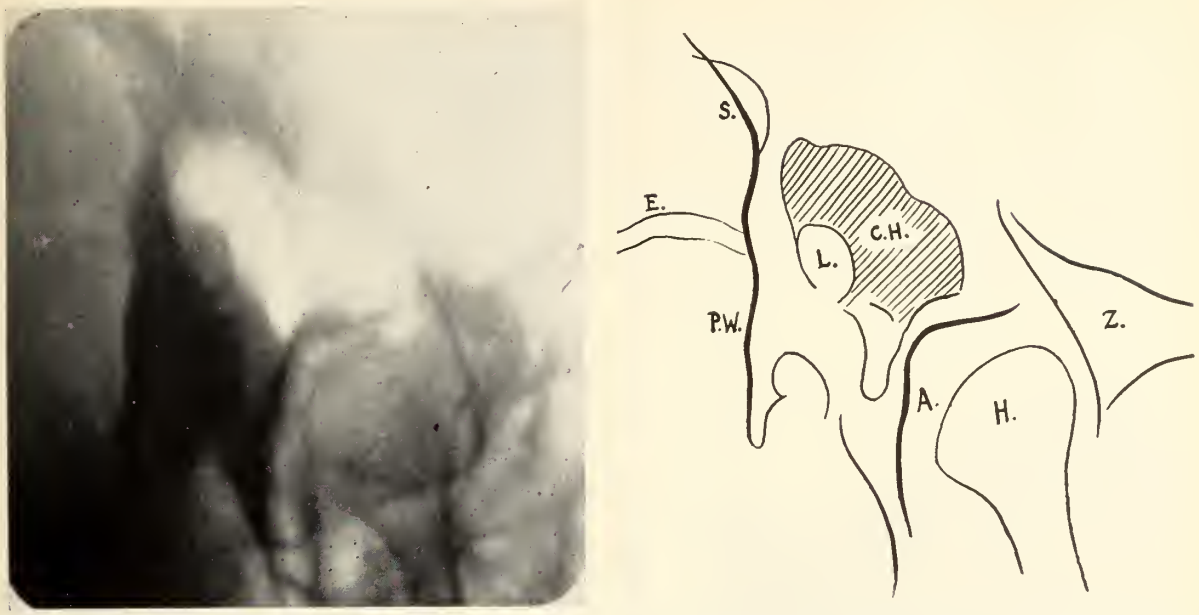


Figure 5.—Large cholesteatoma (ch), extending from the posterior wall (pw) of the mastoid into the anterior wall of the external canal (a). Labyrinth is partly sequestrated (l), emissarial vein (e), sinus (s), head of mandible (h), zygomatic root (z).



Figure 6.—"Nature's radical operation" (see text) with extensive destruction of antrum, attic, posterior wall and their surroundings; head of mandible (1), zygomatic root (2), posterior outline or area of destruction (3), labyrinth (partly sequestrated) (4), tip of mastoid (5), sinus (6). Axial view.

of cholesteatoma in the attic is the demonstration of bone erosion in the posterior portion of the lateral wall of the attic near the meatus. Later the middle and anterior portions of the lateral wall and also the ossicles may become destroyed. At times the perforation of the easily visible lateral wall of the attic calls one's attention to the presence of changes in the antrum.

4. By further progress the bone destruction involves the posterior wall of the external auditory canal. This becomes increasingly thinner until it perforates, producing open communication of the antrum with the external auditory canal. This may be of varying extent and at times may be very wide, destroying almost the entire posterior wall and damaging and paralyzing the seventh nerve. (Fig. 5).

5. The cholesteatoma may also grow toward the tegmen. In such instances it is seen that the tegmen is eroded from inside. It becomes increasingly thin until it perforates at the top of the thin bone structure. It may perforate on the anterior wall of the mastoid (middle fossa perforation) or on the

posterior wall (posterior fossa perforation). When the posterior wall of the external canal is simultaneously destroyed, the tegmen perforation can be demonstrated by injection of lipiodol into the opening of the antrum perforation. (Figs. 6 and 7).

6. When antrum, attic and posterior wall together are destroyed by the cholesteatoma, they may form a large cavity in which the external canal is partly incorporated. A defect may be produced very similar in appearance to post-operative defects following radical mastoidectomy. This condition is called "nature's radical operation." The differential sign of post-operative changes is that the lateral outlines of the defect merge into the opening of the antrum. (Fig. 8). In "nature's radical operation," however, the cholesteatoma cavity shows a dense lateral borderline.

7. Not infrequently a cholesteatoma may primarily develop in the attic instead of in the antrum. When this occurs, the antrum may be large or small,



Figure 7.—Same case as in Figure 5. Lipiodol injected into the tympanic cavity flows through perforated tegmen into an abscess of the temporal lobe; lipiodol (l), cholesteatoma (ch), attic (a), posterior wall of mastoid (pw), head of mandible (m). Axial view.



Figure 8.—Defect after radical operation with large sequestrum. Head of mandible (1), zygomatic root (2), bone sequestrum (3), fuzzy outlines of posterior margin of the defect suggest recurrent inflammation (4), sigmoid sinus (5), emissarial vein (6), tip of mastoid (7), pinna (8).

cloudy or clear, but shows no signs of bone erosion. The lateral wall of the attic, however, is partly or wholly destroyed. Destructive changes may extend from the attic in a similar way as from the antrum, and cause again in the final stages "nature's radical operation."

8. In rare instances, the cholesteatoma may also invade the bony structures of the labyrinth or it may creep around it and cause sequestration of the entire labyrinthian nucleus.

As mentioned above, chronic inflammatory changes when localized in pneumatic cells are only recognizable when they are associated with radiological signs of bone destruction. Such a sign is progressive fuzziness of the margin of the cells in addition to their cloudiness. Sometimes bordering cell groups become confluent and form large holes by destruction of intercellular bone septa. When inflammation extends from cells into the diploic and also involve the inner table, progressive translucency of nonpneumatized bone structures may become evident. Progression of such roentgen signs, when observed in serial examinations, is one of the most reliable evidences of disease.

Not only static changes in chronic inflammatory conditions may be demonstrated in radiographs, but also acute recurrences of the disease. When they follow cholesteatoma, previously quiescent sharp borderlines suddenly become fuzzy and structures adjacent to the cholesteatoma, which seemed to have been static, suddenly reveal signs of perforation. A cholesteatoma removed by radical operation may reoccur, producing a new cavity at the margin of the instrumental defect or within the defect itself.

Considerations are similar when acute recurrences of chronic inflammatory conditions of pneumatic cells are studied. Here, too, structures which were sharply outlined for a long period of observation, suddenly may change their appearance and become fuzzy. Areas of bone tissue adjacent to cells, previously showing spongy or sclerotic structures may lose the structural design and become translucent.

In the present paper, we have tried to summarize the fundamental radiological features of chronic inflammatory conditions of the mastoid. Many details, their clinical and pathological correlations and rare findings, have been omitted in order to serve our purpose with more emphasis. The possibility of roentgen demonstration of the intricate structures of the middle ear and the inherent diagnostic potentialities of the roentgen examination in chronic diseases of the mastoid has been presented.

SUMMARY

Clinical indications, technique and procedure in roentgen demonstration of chronic diseases of the mastoid are presented.

Special emphasis is placed on the possibility and necessity of visualization of the mastoid antrum, meatus ad antrum, attic and posterior wall of external auditory canal. These structures are only seen on the axial view of the mastoid, taken according to Mayer's position, or in its simplified variation described first in this paper.

Influence of disturbances of the pneumatization in the roentgen appearance of the mastoid in chronic inflammatory conditions is described.

Typical cholesteatoma suppuration, roentgen signs of its most frequent complications, perforation of the lateral wall of the attic, of the posterior wall of the external auditory canal, "nature's radical operation" destruction of the tegmen and labyrinth, their identification on radiographs, and clinical significance are reviewed.

Finally, roentgen signs of recurrence of chronic inflammatory conditions are presented.

Subacute Generalized Neuromuscular Exhaustion Syndrome— A Report of Three Cases

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THE syndrome here presented develops subacutely after severe overexertion which itself occurs during a period of euphoria. The patient suddenly becomes aware of utter exhaustion approaching paralysis of the entire body but most intensely in any particular group of muscles which have been abused. There are severe pain and tenderness in all muscles but also a simultaneous restlessness which makes it difficult for the patient to rest or to relax. Fascicular twitching appears in the muscles and rapid atrophy ensues. During the acute stage the muscles are flaccid and deep reflexes absent: later the reflexes are normal. After a recovery period of several months the patient is able to be up and do moderate work but he never recovers his former endurance.

The writer was apparently the first to report the syndrome on the basis of one case in 1940.[2] Marsh,[1] in 1943, reported a typical case and the present writer two others in 1944.[3] The present paper concerns two cases observed since the last report and one other case not correctly recognized 18 years ago.

REPORT OF CASES

Case 1: *Extreme overexertion in a boy of 16 years for three months, less for another four months. Sudden appearance of muscular tenderness, "jerking" of muscles, atrophy of upper limbs and of legs. Extreme weakness approaching paralysis.*

A boy nearly 17 years of age was brought in by his mother, July 10, 1944, because of paralysis of his upper limbs. The past history was negative; the only illnesses he had had were measles and mumps. The family history was irrelevant. His father was dead. He had two brothers and three sisters, all living and well. His mother earned a living by working in a war plant.

The patient determined on a course of exercises in May, 1943, in order to reach a high degree of physical fitness with the object of joining the Marines as soon as he was 17 years of age. He set for himself in the school vacation of 1943 a program of exercising from morning to night in an improvised gymnasium and also on the ocean beach a few blocks from his home. With a euphoria approaching the pathological he did weight lifting, hand walking, trapeze exercises, hand stands on a bar, "giant swinging" and "push ups."

His accomplishments were extraordinary. He increased his weight from 148 to 165 pounds. His shoulder girdle and upper limbs attained a remarkable size. He increased his weight-lifting ability until he could raise 190 pounds (86 kg.) above his head and his "push ups" (prone position with toes and hands touching, lowering his face to the ground then raising his shoulders to full arm length) were increased to 50 in rapid succession without exhaustion. As he saw his physique improving he became more stimulated and worked seven days a week, 12 to 14 hours a day.

After three months of this activity he suddenly became extremely tender and sore in all his muscles and his weight began to decrease. His weight-lifting capacity diminished to 150, then to 120 pounds and he then had to cease. His "push ups" were reduced to 20, then to zero.

He had "jerking" of the muscles of his back and legs and his arms decreased in size. He took a rest of some days, tried again, took another rest. On April 7, 1944, he suddenly became so extremely tender and weak that he had to cease exercise altogether. He could barely raise his arms above shoulder level. But when he ceased exercise his weight continued to go down until it reached its former level of 148 pounds. Most of this loss appeared to be in the upper limbs and in the legs (not thighs), while his neck, which had greatly increased in circumference, remained large.

Physical examination on July 10, 1944 (seven months from the time soreness first appeared and three months after forced cessation of exercise) showed a remarkable picture. The head was held forward because, while the neck was large, the muscles ached if he attempted to hold his head erect. He held his arms partly flexed at his sides and did not use them if he could avoid it. He was able to feed himself but he could hardly dress and undress and he tied his shoelaces with difficulty. There was marked atrophy of his upper limbs including the hands. He was tender to touch in the shoulder girdle.

The muscles of the shoulder girdle were of excellent tone (increased above the normal condition) while the arm and forearm muscles were of normal or diminished tone. The feel of the latter muscles was pasty, as was that of the calves. The infraspinati muscles were slightly concave. The shoulders, which had been square, drooped like those of a patient with typical muscular dystrophy. Circumferential measurements were as follows: Neck 40 cm., arms, right 27½ cm., left 27 cm.; forearms, right 26 cm., left 25 cm. His arches were high.

Body temperature was 99.8°F. at noon. His tonsils were a little large but not infected, and his teeth were in good condition. Heart and lungs were normal. Blood pressure was 128 mm. Hg. systolic, 70 mm. Hg. diastolic, pulse 64 per minute and of good quality. The arteries felt normal and appeared normal in the fundi. Abdominal organs were not enlarged.



Figure 1.—The patient of Case 1. The droop of the shoulders is striking. Photograph taken three months after complete disability.

Neurological examination showed perfectly normal cranial nerves. His hand grips were 58 and 54 respectively (those of a normal non-working housewife) while the grip of the examiner was 136 and 126 respectively on the same dynamometer. All deep and superficial reflexes were symmetrical and normal throughout; there were no pathological reflexes. Sensory perception was normal but there was excessive tenderness of the involved muscles, especially the nuchal muscles, and active exercise was extremely painful.

He was sent to the Los Angeles General Hospital, Neurological Service, for further study because the family had no means. The urine was normal in all usual respects but the creatine determination after two days on a creatine-free diet was 0.9 gm. in 24 hours (questionable as to significance). Spinal puncture gave the following results: Total protein 50 mg. per 100 cc., sugar normal, cells 3 per cmm., colloidal gold curve flat, and Wassermann test negative.

The patient was then placed on a high caloric, high protein diet. He was given 60 gm. of glycine and 60 gm. of gelatine daily, 50 mg. of alpha tocopherol, 50 mg. of thiamine chloride by hypodermic injection, and also 5 cc. of wheat germ oil three times daily.

He was seen again October 24, some three months later. His shoulders still drooped, although less than at the first examination. He was able to walk about and to rise from a squatting position but he had practically no use of his forearms and hands. The circumferential measurements of the forearms were less than before while those of the arms remained the same. He barely had sufficient strength in his hands to dress himself and to tie his shoelaces. The circumference of his neck was 41 cm., one cm. greater than before.

Case 2: *Arteriorsclerotic man of 61 years moved 539 cans of milk weighing 128 pounds each in three days. Complete exhaustion with loss of 27 pounds in six weeks in spite of rest. Slight recovery.*

M.V., a governmental inspector of milk, had never been ill except for an inguinal hernia until June 19, 1944. His parents had both died of old age; his wife was living and well and he had no children.

When he reported for his assignment on the date given above, he found that no labor help was available and he decided to do the necessary heavy work himself. Five hundred thirty-nine cans of milk weighing 128 pounds (58 kilos) each, were stored in large refrigerators and each can had to be taken out for inspection of the contents. This involved lifting and hauling them into new positions and replacement afterward. He worked from morning to night for three days and finished the job.

On the evening of the third day he was utterly exhausted; he ached in all muscles of his body and he could not rest. Instead of being stiff the next day he was merely weak and too exhausted to be up or to dress himself. He had severe anorexia and ate little. He remained in bed with pains in his chest and with pounding of the heart. In spite of bed rest each day he felt worse and in the subsequent



Figure 2.—Photograph taken three months later and after intensive treatment during that length of time. The shoulders show much less drooping.

six weeks he lost 27 pounds in flesh. He notified the insurance carrier under which he was protected by group insurance but the doctors could not make a diagnosis and the company refused liability. When he asked to have his hernia repaired the operation was refused because of his poor physical state. He was completely examined in two clinics but nothing relevant was found except the marked loss of weight. All laboratory findings showed nothing wrong. This work included electrocardiogram and barium meal as well as blood counts and blood chemistry.

After two months of hospitalization and lack of diagnosis he attempted to return to work but found himself physically unable to continue through a day because of fatigue. On October 19, 1944, he appeared for neurologic examination.

Physical examination showed a short stocky man of 61 years whose temperature was 97.8°F. and whose flabby musculature was obvious. His clothes hung loosely about him. Lymph glands and thyroid were not palpable. All of his teeth were in poor condition. His heart was slightly enlarged to the left but tones were clear. Blood pressure was 148/82, pulse rate 66 per minute. His brachial arteries were somewhat tortuous and the retinal vessels sclerotic. The abdomen was negative. A complete neurologic examination failed to reveal any evidence of "organic" disease. A diagnosis of exhaustion syndrome was made.

He was advised to take glycine and gelatine, one tablespoon daily of each. He was also given a potent preparation of vitamin B complex and was urged to be wary of expenditure of energy. He returned to his work but only to the technical portion of it. He was too weak to do any but the most essential walking and he spent over 12 hours a day in bed. He was lost to observation and the final outcome is unknown.

Case 3: *Dean in a university working 15 to 18 hours daily for ten years reached so low a level of endurance that walking two city blocks was sufficient to put him to bed for three weeks. A loss of 70 pounds in weight was recorded.*

G.H.R., a man of 42 years, appeared for examination in 1927 because of exhaustion. Unacquainted with the exhaustion syndrome, the author of this paper studied him from the standpoint of vegetative nervous system imbalance and reported the case with others of vagotonia. In the light of recent cases it is clear to me what really was the origin of his trouble. Overwork was at the time blamed for the vagotonia but the symptomatology rather than the etiology was studied. Details irrelevant to the earlier report will now be brought into focus.

He began to teach in the university at the age of 28. By the time he had attained to the age of 33 he was dean of one school. By indefatigable devotion to work he advanced to the deanship of three schools. He spent most of his time in administrative work during the working day and spent every evening attending dances, conferences, committee meetings, social gatherings and student activities to the extent that his day was never less than 15 and usually 18 hours long. By the time he was 36 years of age his endurance began to fail. He could not run up three flights of stairs as usual but took to the elevators. He began to lose weight and to sleep poorly. When he had a cold he was forced to go to bed for a week.

He gradually found it impossible to climb any stairs and his gait was slowed. Next he began to take a taxicab to reach the university. In time he had the cab driver drive him to the rear of the building so that he was able to walk directly into his office without ascending even a few steps. Then he reduced his hours of work to ten, to nine, to eight and finally to four daily.

He then asked for leaves of absence of four to eight months because of "influenza" or even mere "colds." He gradually lost 70 pounds of weight while his neck increased in circumference to 18½ inches. He was examined in many clinics but nothing organic was found to account for his loss of endurance. By the time he came to me he had reached a point where he spent two to three months in bed recovering from the exertion of an hour's shopping.

I examined him from every conceivable angle, including gastric analyses, barium meals, basal metabolic tests, blood chemical studies, blood counts and innumerable urinanalyses and stool bacteriology, all without anything essential being discovered. The muscular flabbiness, continued loss of weight, enlarged neck circumference, euphoria with unwillingness to surrender in spite of weakness approaching paralysis, all make a clear picture of the exhaustion syndrome. He was followed for four years, at the end of which time he could walk four city blocks if he rested for hours afterward.

CONCLUSIONS

These additional cases of subacute generalized neuromuscular exhaustion do not extend our knowledge of the metabolic disturbance responsible for the exhaustion. They do contribute by demonstrating that even a 16-year-old boy in excellent health may increase his muscular development remarkably only to lose all his gain and become a chronic invalid by overexertion and that an older man may similarly ruin his health by much less overwork. There are now six cases on record. The medicolegal aspects[4] are obvious in civilian life. It seems strange that the recent war has not made many cases available for study; probably the syndrome is merely taken for granted under stresses of war.

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The Present Status of Surgery in Congenital Heart Disease*

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SINCE Gross[5] ligated the first persistent patent ductus arteriosus eight and one-half years ago, tremendous interest has been shown in the diagnosis and surgical treatment of congenital cardiac lesions by surgeons and clinicians. Operations on the ductus arteriosus are commonplace today, and several surgeons have large series of cases in which the operation was performed. Two years ago, Blalock and Taussig[1] reported a successful technique for anastomosing a systemic artery to the pulmonary artery to accommodate for the stenosis of the plumonary artery in the Tetralogy of Fallot. More recently, Crafoord[4] of Stockholm, Sweden, and Gross[6] of Boston, have independently resected and anastomosed coarctations of the aorta with cures resulting.

We believe that the indications for surgery of patent ductus arteriosus remain the same, in spite of the development of chemotherapy (sulfonamides and penicillin), with certain specific modifications. Many cases of subacute bacterial endocarditis with patent ductus arteriosus have been reported as "cured" by penicillin therapy, but it is believed there will be a certain number of these cures in which either an exacerbation or a re-infection will occur, so that the so-called "cures" may result in disappointment. The ease of surgery with a low mortality in the non-infected, uncomplicated cases is an argument for the interruption of the shunt of the ductus arteriosus before the patient develops a blood stream infection. Furthermore, it is advised that after an infected patient has made a so-called "cure" from penicillin therapy, he should have surgery in order to safeguard him against exacerbations and re-infections. The mortality from the latter group as against the uncomplicated, uninfected cases will be considerably higher because the arteritis in the ductus arteriosus even though apparently healed, makes the dissection infinitely more hazardous and the dangers of hemorrhage vastly greater. Then too, the permanent damage of the infection and vegetations in an infected case, even though the ductus arteriosus is successfully divided and sutured later, is not to be overlooked or forgotten.

Definite advances have been made in the surgery of patent ductus arteriosus. The original operation of ligation "in continuity" of the ductus has been modified by Gross,[7] who in his last 87 cases has divided and sutured the vessel. This technique has completely eradicated the possibility of a re-establishment of the fistula, either by a ligature which does not completely occlude the vessel, or one that is too tight and cuts through the vessel, allowing the blood to pass around the ligature. More recently Blalock,[2] believing that the division and suture operation of Gross was too hazardous, modified the ligation technique and incoporated purse string sutures both proximal and distal to the tape ligature, allowing the ductus to remain intact.

The mortality in our[8] series of 61 operations, which includes both ligation and division and suture, has been one surgical death due to hemorrage (1.6 per cent). One other patient died later on a re-admission to the hospital with bacterial endocarditis and aneurysm at the site of ligation after the ties had cut through the vessel. Fifty-nine of the 61 patients remain alive and in apparently good health; ten of them have a residual continuous murmur. All these cases with a recurrence of the murmur had the ductus ligated "in continuity." We believe therefore that where it is feasible to do so the division and suture of the ductus should be carried out in preference to the original ligation "in continuity."

SURGERY IN TETRALOGY OF FALLOT

The Blalock operation[1] was proposed for the anastomosis of a systemic vessel to one of the pulmonary arteries in Tetralogy of Fallot, commonly called "blue baby." The latter is characterized by: (1) Pulmonary stenosis or atresia; (2) Dextroposition of the aorta; (3) High interventricular septal defect; (4) Right ventricular hypertrophy. The most striking feature of this condition is the cyanosis, which does no harm per se. Actually it is the manifestation of anoxemia and compensatory polycythemia, and is due to the presence of reduced hemoglobin in the circulating blood. Cyanosis becomes apparent when the reduced hemoglobin approaches 5 grams per 100 cc. of circulating blood. If the circulating blood contains 6 or 7 grams of reduced hemoglobin, then cyanosis is marked. Lundsgaard and Van Slyke[9] pointed out that there are four factors in the production of cyanosis: the height of the hemoglobin, the volume of the venous blood shunted into the systemic circulation, the rate of the utilization of the oxygen by the tissues, and the extent of the aeration of the blood in the lungs. They demonstrated that if there was a marked polycythemia, secondary changes occurred in the lung, and that all the blood passing through the lung did not come in contact with alveolar oxygen. The cyanosis, however, in these polycythemic patients can be lessened by prolonged inhalation of oxygen. It seemed to them, then, that if all of the blood passing through the lungs were not fully oxygenated, it was improbable that if more blood circulated through the lungs a larger percentage of blood would be oxygenated.

Taussig,[1] however, pointed out the importance

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of the volume of blood which reaches the lungs for aeration. She called attention to the fact that in all cases with pulmonary atresia in which all the blood to the lungs is conveyed by a patent ductus arteriosus, the closure of the ductus arteriosus renders the condition incompatible with life. She had studied several infants with pulmonary stenosis in whom cyanosis was not apparent until the ductus was closed. She concluded that so long as the circulation to the lungs was adequate, many gross congenital malformations of the heart were compatible with life, and that the lack of the circulation to the lungs was the primary cause of death in many infants with congenital heart malformations. Furthermore, that in cases of Truncus arteriosus when the pulmonary arteries are given off by the aorta, there is adequate circulation to the lungs and cyanisos is minimal or absent. On the other hand, if the pulmonary artery fails to arise from the heart or the aorta, and the circulation to the lungs is by way of the bronchial arteries, only a small volume of blood reaches the lungs for aeration and the cyanosis is intense.

Blalock,[1] who had had considerable experience with anastomosing a large systemic artery to one of the pulmonary arteries, devised his operation with a view to compensate for an inadequate flow of the blood to the lungs, by anastomosing either the innominate or subclavian artery to the side of either pulmonary artery so the flow of the shunted blood was to both lungs. Since the stenosis of the pulmonary artery in Tetralogy of Fallot is usually in the myocardial portion of the artery, there are no technical difficulties with such an anastomosis from the standpoint of the pulmonary artery itself.

In Tetralogy of Fallot, the foramen ovale is closed, the ductus arteriosus is closed, there is cyanosis and marked clubbing of the digits. If this phenomenon exists and the ductus remains open, there is no cyanosis, but if and when the ductus arteriosus closes, cyanosis appears. It is well to point out here that a patent ductus arteriosus with cyanosis only under stress and exercise, definitely indicates the possibility of Tetralogy of Fallot, and the ductus should not be ligated except in the presence of bacterial endocarditis. There is usually a cardiac murmur, systolic in time, heard best at the left sternal border and the left second interspace. The murmur is usually loud and is accompanied by a marked thrill. The electrocardiogram shows right axis deviation, with high P and normal T waves. The diagnosis should be seriously questioned if there exists a left axis deviation. A high pulmonary arterial pressure (measureable only at the time of surgery) of 280 to 300 millimeters of water would indicate the absence of pulmonary stenosis and contraindicate surgery. In considering patients for the Blalock operation, one should limit them to the small or moderately enlarged hearts, for the greatly enlarged hearts are unable to compensate after the anastomosis and are therefore a contraindication to surgery. The greater the degree of cyanosis, the greater the indication for the use of a larger calibre vessel such as the innominate artery, but the size of the heart should not be disregarded. In the case of a deeply cyanotic patient with a moderately large heart an anastomosis is needed of a smaller calibre vessel than in the case of a deeply cyanotic patient with little or no cardiac enlargement. In a moderately or slightly cyanotic patient, or one who becomes cyanotic on activity, with a normal sized heart, there is no indication to use the larger calibre vessels and the preference is for the subclavian artery, which is usually the smallest of the three great vessels arising from the aorta.

The greater the degree of the polycythemia and the higher the red cell count, the greater the possibility of a cerebral thrombosis, either spontaneously or post-operatively. Apparently recovery from a spontaneous cerebral thrombosis is no contraindication to the Blalock operation. Blalock[3] has had a few (four in the first 50) cases of post-operative cerebral thrombosis with hemiplegia, in ligations involving the carotid artery. At that time, one patient had died, one had an apparently permanent hemiplegia, one had partially recovered, and the fourth patient had a complete recovery. There had been at that time no thrombosis when the subclavian artery had been anastomosed to the pulmonary artery.

One might expect serious complications resulting from the ligation of the subclavian artery. There is definitely a lowering of the temperature of the corresponding arm for a few days, then a return to normal temperature. Likewise the absent radial pulse in most of Blalock's[3] series returned in a few weeks.

The hematocrit reading in Tetralogy of Fallot varies from 70 per cent to 85 per cent. Normally the arterial oxygen saturation level is 95 per cent to 98 per cent. In blue babies, it is about 30 plus or minus, per cent. The best results from surgery have increased the arterial oxygen saturation to between 80 and 85 per cent; in some cases, however, the oxygen saturation has come to 70, plus or minus, per cent, and remained at that level.

OTHER CONGENITAL ANOMALIES OF THE HEART AND AORTA

Congenital anomalies involving other parts of the heart and aorta as well as the origin of the aortic branches, are frequent. The anomalies of the aorta and its major branches, however, are a most important consideration since the clinician and surgeon must determine these preoperatively so far as possible so that a decision can be made as to the side of approach for the anastomosis.

A left aortic arch with a left descending aorta occurs in from 75 to 80 per cent; a right aortic arch with a right descending aorta occurs in 20 or 25 per cent of the patients. When a right aortic arch with a right descending aorta presents, the origin of the great vessels from the arch is reversed. A right aortic arch with a left descending aorta usually occurs in an otherwise normal heart, and had not been seen in the large series of Tetralogy of Fallot patients seen by Taussig and Blalock. Dextrocardia may or may not be present in this condition. In the cases in which dextro-

cardia has been observed, the aorta may be on the right or on the left, and these occur with about equal frequency. Dextrocardia then per se does not indicate the side of surgical approach. It is the origin and descent of the aorta that gives this information. A patient with a left aortic arch with a left descent is best operated through a right sided surgical approach, and conversely, one with a right arch and a right descending aorta should be approached from the left side.

The origin and descent of the aorta can only be determined by roentgenograms and careful fluoroscopy. Roentgenologically, the lung fields are clear and the pulmonary conus is concave or absent in Tetralogy of Fallot. In the presence of increased bronchovascular markings, dilated vessels, or pulsating pulmonary vessels in the hilar regions, the diagnosis of Tetralogy of Fallot is doubtful. The origin of the vessels from the aortic arch cannot be located by x-ray examination, but the origin is indicated by the position of the aorta. Fluoroscopic examination should be made in the anteroposterior and both oblique positions, with barium in the esophagus. This is the most important examination in determining the feasibility of surgery and the side of approach, as it shows the origin and descent of the aorta.

The most severe and complicated malformations are found in cases with a dextrocardia with cyanosis, and in these the diagnosis of Tetralogy of Fallot is the least accurate. In Tetralogy of Fallot there may be cardiac failure without the presence of rales in the chest, because of the small amount of blood circulating through the lungs. It is well to keep in mind that if a patient has rales in the chest without a bronchial infection, the diagnosis of Tetralogy of Fallot is to be doubted.

No surgery is indicated for the Eisenmonger complex, which is characterized by a normal sized pulmonary artery, a dextroposed aorta, a high ventricular septal defect, and while there may or may not be cyanosis, there is no hypertrophy of the right ventricle.

Space does not permit of a discussion of the surgical technique and postoperative care which has been discussed in detail in the article by Blalock and Taussig.[1] The indications for the operation are an inadequate circulation of the blood to the lungs due to pulmonary artery stenosis, and since the first case was operated only a little over two years ago, not enough time has elapsed to calculate the final results, nor to outline all the contraindications to surgery. It would appear that generally the best surgical results will be in the younger children who have little cardiac enlargement, and the poorer results in those older children and adolescents with larger hearts which do not cope as well with the shunt of blood through the anastomosis, or who might conceivably have permanent changes in the pulmonary vascular bed.

It is only natural to assume that such major surgery would carry a relatively high mortality in a "poor risk" group of patients who have a Tetralogy of Fallot. One must not lose sight of the fact, however, that without surgery the vast majority of these patients have a hopeless prognosis. Blalock's[3] series of now over 90 operations for this condition reports a mortality of 20, plus or minus, per cent. This is indeed a low mortality in a large series in the hands of a most skillful and courageous surgeon. The great majority of those patients who have survived the surgical convalescence, have made a most dramatic improvement, and the Blalock operation is recognized as probably one of the greatest surgical contributions to modern medicine.

Crafoord[4] in 1945 published a report of the successful surgical treatment of two patients who had congenital coarctation of the aorta. Gross,[6] working independently, reported his experiences with the surgery of coarctation, both in children, one of whom died during the operation, but the other was cured. Both surgeons employed the method of resection of the constriction after applying clamps to the aorta above and below the lesion and anastomosing the cut ends together.

Crafoord's patients were a 12-year-old boy and a 27-year-old farmer, operated upon in October of 1944. They were reported one year later as well and living normal lives, the farmer doing light chores. Gross's child was well and apparently cured several months after the operation. They reported no organic damage as the result of the occlusion of the aorta, and the blood pressure in the lower extremities approximately the same as in the upper.

The relatively bad prognosis of this group of patients who develop arteriosclerotic changes if they do not die of subacute bacterial endocarditis before this occurs, warrants serious consideration for surgical treatment, provided the latter is feasible without undue risk. It would seem to be indicated in childhood, for later in life the arteriosclerotic changes in the vessels might render the anastomsis a most difficult or impossible task. The few cases reported are a most encouraging stimulus to clinicians for the correction of a congenital lesion which has had a hopeless outlook.

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An Evaluation of Topical Penicillin Therapy; Review of Recent Literature

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THE introduction of new agents of chemotherapeutic value is usually followed by their widespread and over-enthusiastic usage. This practice is particularly apt to occur in the field of dermatology in which specific therapy is at times lacking and empirical methods of treatment must be employed. The best example of the foregoing was the one-time indiscriminate use of sulfonamide ointments in diseases in which little or no chance of success existed. Sulfonamide ointments later found their true place in dermatologic practice, but meanwhile their application to the skin produced various cutaneous and systemic sensitization phenomina in countless individuals.

While penicillin has been generally available for only a comparatively short time, there are numerous and enthusiastic reports in both medical and lay journals concerning its local use. As might be expected, penicillin ointment is frequently prescribed, often without regard to the etiology and nature of the dermatosis to be treated. That this practice is not innocuous is becoming more and more evident by the steadily increasing number of reports of sensitization reactions resulting therefrom.

The purpose of this article is to evaluate the present status of penicillin ointment in the treatment of various skin diseases; to discuss the reactions which are being encountered; and to attempt to delineate the proper place of this substance in the dermatologic armamentarium.

REVIEW OF TOPICAL PENICILLIN THERAPY

In an attempt to evaluate topical penicillin therapy, case reports* from numerous sources have been tabulated to form Table 1. Cases were not included in the table if penicillin was also administered parenterally, or if the diagnosis was not clearly set forth.

As shown in Table 1, penicillin ointment is of considerable therapeutic value in those bacterial infections of the skin in which penicillin-sensitive organisms predominate. Thus 119 of 159 individuals with impetigo were cured, 25 showed some improvement, while only 15 failed to show any improvement or became worse. In the ecthyma and pyoderma group 50 of 58 cases were classified as cured, while six were not improved or became worse. Forty-four of 99 individuals with sycosis vulgaris were considered cured with penicillin ointment alone, and an additional 22 showed improvement. The treatment failed completely in 33 of this group. In the infectious eczematoid dermatitis and eczematous dermatitis (with secondary infection) group, 56 of 62 patients responded partially or completely as compared with a favorable response in 12 of 25 with eczematous dermatitis in which secondary infection was supposedly not present.

Table 1.—*Tabulation of Results of Topical Penicillin Therapy****

Disease	Total No. of Cases	Cured	Improved*	Not Improved or Worse
Impetigo	159	119	25	15
Ecthyma and pyoderma	58	50	2	6
Sycosis vulgaris	99	44	22	33
Infectious** dermatidities	62	28	28	6
Eczematous dermatitis (uninfected)	25	2	10	13

* Improved—Cases lost from observation before cure, but improving at last visit, or those requiring adjunctive therapy.

** Includes both infectious eczematoid dermatitis and eczematous dermatitis with secondary infection.

*** Collected from the literature (references 4, 5, 6, 7, 10, 13, 20, 24, 25, 28, 29, 34).

Scattered case reports not shown in the table have indicated that penicillin ointment may be effective in such bacterial infections of the skin as furunculosis, folliculitis, secondarily infected dermatomycosis, erysipelas, cellulitis, and dermatitis repens. It should be noted that in several of these diseases, particularly furunculosis, erysipelas and cellulitis, parenterally administered penicillin is preferable.

Other investigations have indicated, as might be expected, that penicillin ointment is of little or no value in acne vulgaris, seborrheic dermatitis, neurodermatitis, dermatitis venenata (uninfected), dermatomycosis (not secondarily infected) and other non-bacterial skin diseases.

Penicillin ointment seems to have certain therapeutic advantages not shown by these data. It simplified the treatment for the patient, since antiseptic wet dressings were not employed. The chief advantage, noted by most investigators, is the rapidity of response in those patients in whom treatment is successful, with a reduction of many days in the total treatment time.

REACTIONS

Following Parenteral Administration:

Until recently the majority of penicillin reactions reported have followed parenteral administration of the drug. These reactions are not limited to the skin, but present protean manifestations, as shown

* References 4, 5, 6, 7, 10, 13, 20, 24, 25, 28, 29, 34.

in Table 2. While it is true that the commercial penicillin sodium which produced most of these reactions contained many impurities, investigation has shown that pure crystalline penicillin has allergenic properties.[19,33]

TABLE 2.—*Types of Reactions from Penicillin*[34]

1. Eczematous and eczematoid eruptions (contact type).
2. Exanthems with joint swellings and other manifestations, resembling serum sickness.
3. Morbilliform eruptions.
4. Pompholyx and dyshidrosis-like eruptions of hands and feet.
5. Pruritus.
6. Urticarial and angioneurotic edema-like eruptions.

Following Topical Administration:

During the past year reports on reactions from the use of topical penicillin therapy have appeared with increasing frequency. The paucity of earlier reports may be attributed in part to the heretofore scarcity of penicillin for use in ointment form.

With the recent widespread use of penicillin, it has become apparent that the drug applied topically has potent sensitizing properties, and many instances of contact dermatitis through epidermal sensitization to penicillin have been reported.* In addition there is some evidence that penicillin applied locally can and does produce a sensitization in the dermal or vascular structures which may result in one of the systemic reactions noted in Table 2. Cormia et al.[8] and Haswell and Wilkinson[12] have reported a number of such reactions, and one of us has recently seen a similar instance in a patient who had been using penicillin ointment on his hands for nine days in treating a pyoderma. On the tenth day he developed an angioneurotic edema involving the right side of the face.

At present the majority of recorded reactions from penicillin ointment are of the contact dermatitis type due to epidermal sensitization. The frequency with which reactions may be expected to occur when penicillin ointment is employed therapeutically can be estimated from the following reports. Rostenberg and Welch[19] in a group of 144 persons, none of whom had been exposed to penicillin previously, found eight, or 5.5 per cent, to be sensitive to penicillin as determined by a positive old-tuberculin type of reaction to the intradermal injection of 0.1 cc. (1000 units) of penicillin sodium. They further demonstrated that repeated intradermal tests in some individuals caused an arthus type of response which eventually developed into a tuberculin-like reaction. Gottschalk and Weiss[11] in a recent study were able to produce epidermal sensitization by repeated patch tests to a penicillin ointment in 4.5 per cent of 200 persons. Cohen and Pfaff[7] found that 0.95 per cent of 524 patients had positive patch tests to penicillin ointment, while Wrong[34] noted two severe local reactions out of 94 patients treated locally. Canizares[5] noted reactions to penicillin ointment in 2.9 per cent of 174 patients.

Actually, the above reports do not give a true picture of the incidence of penicillin reactions. It has been shown by numerous investigators that the patch test may be negative in definite instances of contact dermatitis from penicillin ointment. Wrong, as quoted by Pillsbury,[17] states that the incidence of dermatitis "is increasing by leaps and bounds and is well over 10 per cent." Pillsbury, in the same report, states that "the present incidence of sensitivity reactions is apparently over 15 per cent, and this percentage may increase as more individuals are exposed to the drug."

DISCUSSION

In an attempt to evaluate penicillin ointment in the treatment of various skin diseases, a major portion of the literature has been reviewed. As might be expected, penicillin ointment has been tried in a large number of skin diseases, but in tabulating the results of treatment it was found that it was of value in only those bacterial infections of the skin commonly caused by penicillin-sensitive organisms. Actually this group of skin diseases is very small and, as shown in Table 1, consists of impetigo, the ecthmya-pyoderma group, sycosis vulgaris, and the infectious dermatidities. The over-all results of treatment of this group of diseases were excellent. However, comparable results have been obtained with older chemotherapeutic agents such as ammoniated mercury, oxyquinoline sulphate and antiseptic wet dressings. Therefore it would seem that the main advantage of employing penicillin ointment, as previously noted, is the rapidity of response.

While the bacterial infections included in Table 1 might all be expected to respond to penicillin, a significant number failed to improve. This may be explained by penicillin resistance of certain strains of staphylocci[16,32] and streptococci. Tainter,[27] in an excellent review of this subject, states that there occurs in nature some strains of staphylococci relatively penicillin resistant. It has also been shown that skin diseases caused by strains of organisms sensitive to penicillin *in vitro* have failed to respond in therapeutic trials. This may be partially explained by the unsuitability of the bases employed. Another explanation of considerable importance, however, is the possible development, following initiation of therapy, of penicillin resistant strains of organisms. That this does occur is confirmed by the work of Davies et al.[9] in which 10 per cent of their patients developed penicillin resistant strains of bacteria before the end of 14 days of treatment. Therefore, inconsistencies in response to penicillin ointment must be expected, and probably with increasing frequency, as more penicillin-resistant strains are encountered. In this connection Tainter[27] has warned ". . . inefficient self medication (and of course equally inefficient medication by the physician) must be avoided. [If this is not done], increasing numbers of penicillin resistant infections can be confidently anticipated."

* References 1, 2, 3, 11, 15, 18, 21, 22, 23, 30, 31.

While the majority of penicillin reactions have appeared after an exposure period of five to ten days, it has been noted that some individuals have shown an immediate reaction, and upon patch testing have been found to be sensitive to penicillin.[11] Furthermore, these people have had no history of previous penicillin treatment or exposure to the drug. Rostenberg and Welch[19] have offered an explanation of this initial sensitivity on the basis of previous exposures to, or subclinical infection with, penicillium notatum mold. In addition Cormia, Jacobson and Smith[8] have pointed out the possibility of a group sensitivity to fungi, particularly in patients with dermatomycosis. This may possibly explain the dermatophytid eruptions following the use of penicillin. Kolodny and Denhoff[14] in a consideration of this subject state that the most severe penicillin reactions in their series occurred in patients with fungus infections. They also considered it significant that the trichophytin skin test was positive in a high proportion of patients sensitive to penicillin.

It seems apparent that an increasing percentage of individuals are developing a sensitivity to penicillin through contact with the drug. This sensitivity is commonly manifested by a contact dermatitis, but can be manifested by any of the known systemic reactions. There is some evidence that continued and prolonged exposure to penicillin will produce sensitization in a large percentage of people. Gottschalk and Weiss[11] reported seven persons exposed to penicillin over a long period of time and all seven were found to be positive to the patch test to penicillin ointment. They also found that 17 persons of 200 reacted to a second patch test with penicillin ointment when they had not reacted initially, concluding therefrom "that the substance is evidently a sensitizer of some degree of potency . . ." Additional support for this statement is the well known fact that physicians and laboratory workers are prone to develop penicillin sensitivity through prolonged contact with the drug.[3,11,17,18]

In summarizing the data relative to reactions from topically applied penicillin, it seems definite that (a) an appreciable number of individuals are initially sensitive to penicillin ointment; (b) prolonged contact to penicillin will produce sensitivity in a large percentage of individuals; (c) reactions are being encountered much more frequently as the drug gains wider usage; and (d) the incidence of reactions has now reached such proportions as to suggest strongly that the topical application of penicillin be limited to severe non-responding bacterial infections of the skin.

SUMMARY AND CONCLUSIONS

1. The medical literature relative to topical penicillin therapy has been reviewed.

2. Penicillin ointment has been found to be of value in a limited number of dermatoses ordinarily caused by penicillin-sensitive bacteria, such as impetigo, the ecthyma-pyoderma group, sycosis vulgaris and the infectious dermatidities. However, even in these diseases, inconsistencies in response to treatment occur, probably because of penicillin-resistant strains of streptococci and staphylococci and improper local use of the drug.

3. The overall results of topical penicillin therapy of the bacterial infections of the skin are good, but comparable results have been obtained with other chemotherapeutic agents although more time may be required.

4. Reactions to penicillin ointment are usually of a contact dermatitis type, but may be of a systemic nature.

5. Evidence has been presented which indicates that an appreciable number of individuals are initialy sensitive to penicillin. Furthermore, reliable studies have shown that a large, but as yet, undetermined, percentage of people become sensitized to penicillin following local contact with the drug.

6. Because of the increasing incidence of reactions concomitant to the present widespread use of penicillin, it seems likely that its topical use will eventually be limited to bacterial infections of the skin unresponsive to other therapeutic agents.

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Treatment of Interstitial Cystitis

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A DISEASE which keeps its victim suffering and miserable for many years, and for which no satisfactory treatment has been developed, is one which deserves frequent review and discussion. Such a disease is interstitial cystitis or Hunner ulcer. A number of terms are used to designate this bladder inflammatory process described by Hunner[2] in 1914 and often called by his name. Interstitial cystitis is the one given by Jordan's Standard Nomenclature of Diseases which is accepted by most hospitals.

The symptoms and findings characteristic of interstitial cystitis are familiar to all urologists: the severe bladder pain, the marked frequency and urgency of urination, the small bladder capacity and the clear urine are almost diagnostic. When these are accompanied by the typical cystoscopic picture of an area of velvety inflammation and fibrosis situated in the dome or fundus of the bladder, which bleeds following bladder overdistention, and from which acute injection radiates, a definite diagnosis can be made.

The histopathology is that of any chronic inflammatory process, and involves the muscularis more than the mucosa of the bladder. The etiology is not definitely known. However, the condition is probably the result of infection in a near or distant focus, and may be due to (1) bacterial invasion[3]; (2) toxemia[3]; (3) lymphatic[4] or circulatory[1] obstruction; or (4) a combination of these or other causes. In many cases no etiologic factor can be identified or excluded; in others, usually a long time is required to eliminate the focus or infection.

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It is important, then, that local treatment be directed toward the greatest possible relief of bladder symptoms. The existence of bacterial infection in the bladder lesion has never been demonstrated; if this were present it would be found beneath the vesical mucosa rather than on its surface. Therefore, topical application of antiseptics would do very little, if any good and would likely even intensify the symptoms by producing irritation and increased bladder spasm.

TREATMENT

The best local treatment of any chronic inflammatory process is one which increases circulation—both blood flow and lymph drainage—in the tissues involved. Thus, it seems logical that an increased circulation in the bladder wall of patients presenting interstitial cystitis would not only relieve symptoms, but might even eventually effect a cure if the primary cause of the condition were eliminated. It is probable that the beneficial effects produced by overdistention of the bladder are due as much to increased circulation as to enlarged bladder capacity, for sometimes patients are seen whose symptoms are partially relieved but whose bladder capacity remains unchanged. Bladder spasm, which is always present in these cases, causes ischemia of the bladder wall. Every effort should be made to combat local circulatory stasis by reducing bladder spasm to a minimum.

During the past few years we have been using a routine treatment for interstitial cystitis, the primary object of which is to increase circulation in the bladder wall:

1. Pass a catheter, empty the bladder and instill one-half ounce of 1:200 nupercaine or other local

anesthetic; allow it to remain in the bladder 10 minutes by the clock. If the patient is male, instill into the bladder through the meatus after he has voided.

Inasmuch as all these cases have hyperirritable bladders, the instillation of a local anesthetic helps to prevent bladder spasm, and aids in obtaining greater bladder capacity during overdistention.

2. Pass a catheter and overdistend the bladder with *warm* 1:6000 potassium permanganate solution. Allow the fluid to run into the bladder very slowly, and continue distending until the patient states he can hold no more.

It is very important to use warm solution, for cold or hot solution causes bladder spasm. Too rapid overdistention of the bladder may also induce spasm.

3. Allow the solution to run out through the catheter, then instill one-half ounce of mild antiseptic or bladder sedative.

It is more important at this point to allay spasm than to disinfect the bladder. One of several solutions may be used: Cajandol (Squibb); a mixture of equal parts of 1:500 silver nitrate and an emulsified oil such as plain petrolagar—the oil reduces the irritability of the silver nitrate; a mixture of equal parts of 5 per cent neosilvol and 1:200 nupercaine solution.

4. Follow this immediately by applying heat—preferably short wave diathermy—through the bladder for 15 minutes.

This not only relaxes the bladder, preventing spasm and reduced bladder capacity, but also increases the circulation to the organ.

This treatment is repeated twice or three times a week at first. Then, as the bladder capacity increases and the patient's symptoms are relieved, the interval between treatments is lengthened so that after ten or twelve have been given, one every four, six or eight weeks is sufficient to keep the patient fairly comfortable. Attention to the details of treatment is important, for a small error such as the use of cold solution instead of warm may result in failure of the entire treatment to produce beneficial results. This has been demonstrated in a number of patients who had what was supposed to be the same treatment elsewhere without benefit, but who were helped greatly when it was given by a nurse who was trained to carry out the details properly.

Sixty consecutive cases of interstitial cystitis treated in this manner, from which follow-up reports were obtained, were studied. The diagnosis in each case was made by the cystoscopic finding of one or more typical lesions in the bladder. These were characteristic stellate areas of inflammation, sometimes associated with fibrosis, situated in the dome or fundus of the bladder, and from which a small amount of oozing occurred after overdistention. In most of them, the urine was entirely negative by routine analysis and Gram stain. A summary of these cases follows:

Age

Oldest	81 years
Youngest	7 years
Average	49.5 years

Sex

Male	4
Female	56

Duration of Symptoms

Maximum	53 years
Minimum	3 weeks
Average	6.1 years

Bladder Capacity

	First Visit	1 Month Later	3 Months Later
Minimum	Less than 1 oz.	2 oz.	3 oz.
Maximum	10 oz.	17 oz.	25 oz.
Average	5.1 oz.	9.1 oz.	10 oz.

Frequency of Treatment to Keep Patient Symptom Free

Maximum	1 year
Minimum	1 week
Average	2.3 months

Final Results

Worse	1	2%
Same	3	5%
Up to 50% improved	17	28%
Approximately 75% improved (includes those who had no symptoms between treatments)	25	41%
Well	14	23%

The final results were arrived at by obtaining statements from the patients. The one recorded as worse was treated elsewhere; her answer to the questionnaire stated that she was worse. All patients who felt well most of the time but needed treatment once a month or less frequently, are recorded in the group of approximately 75 per cent improved. Patients recorded as well are those who continued treatment, one for four years, until they were symptom free. Recent follow-up reports on some of these are not available, and it is probable that a few have had recurrence of symptoms.

SUMMARY

It is frequently impossible to identify and eliminate the cause of interstitial cystitis. The chief object of local bladder treatment should be to increase both blood and lymphatic circulation by reducing bladder spasm, increasing bladder capacity and dilating blood vessels and lymphatic ducts. This is accomplished by painstaking bladder treatment consisting of overdistention under local anesthesia followed by short wave diathermy. Sixty-four per cent of 60 cases treated improved more than 50 per cent.

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Cutaneous Reactions to Penicillin*

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In spite of all the careful studies conducted on new drugs before their general release, now and then unlooked for sensitization reactions or other immune-biologic responses have subsequently appeared to harass the clinician.

Penicillin, the first anti-biotic to gain widespread use, furnishes an excellent example of this unusual phenomenon. Although it has the remarkable property of being relatively non-toxic, untoward reactions are daily being observed in increasing number.

The purpose of this report is to discuss specifically the hazards of penicillin, particularly as related to the dermatoses, and to list and classify these reactions. This survey is particularly important since penicillin is being more and more prescribed for comparatively minor infections and other non-infectious lesions of the skin and oral mucous membranes. We are already duplicating the sequence of events that precipitated the innumerable sensitizations observed during the past decade of sulfonamide therapy.

FREQUENCY OF CUTANEOUS REACTIONS

Keefer et al.[4] were among the first to report such complications. Among 500 cases there were 14 (2.8 per cent) urticarial reactions in the course of treatment with penicillin. During the treatment of 182 cases of late syphilis with penicillin Stokes et al.[7] reported four (2.2 per cent) cutaneous reactions, consisting of urticaria two cases; one "id" reaction; and one burning of the skin. Moore et al.[5] noted only 15 (1 per cent) cutaneous reactions in 1,418 patients treated for early syphilis. Severe reactions requiring discontinuance of therapy in five-tenths of 1 per cent of 2,000 soldiers receiving penicillin were reported by Cormia et al.[2] It is undoubtedly significant that of the latter's eight cutaneous reactions, four patients received penicillin therapy for chronic skin infections.

In treating 160 patients suffering from syphilitic infections, the writer observed four (2.4 per cent) instances of cutaneous reactions: two cases of urticaria, one of an erythema nodosum-like eruption, and one of a vesicular eruption of the hands and erythema of the cruris. It is my impression that of several thousand patients treated with penicillin in the military hospitals in which I served, the cutaneous reactions were considerably less than 2 per cent. On the other hand, in a group of patients treated with penicillin for chronic infectious or eczematoid dermatoses, the reaction rate exceeded 30 per cent.

Since penicillin has been more readily available for public use, I have noticed a higher incidence of dermatological complications. Most of the patients I have seen in my civilian practice with complications, had previously received penicillin for minor infections. Many gave a history of either having had penicillin therapy weeks or months before, or a pre-existing severe dermatosis.

TYPES OF CUTANEOUS REACTIONS

1. *Urticaria—angioneurotic edema*

This may arise after the first or after any subsequent administration of the drug. Not infrequently urticaria has appeared as late as seven to twelve days *after* completion of treatment, even when the therapy itself had extended over a period of eight to twelve days.

The eruption may break out either explosively or gradually over a 24-hour period; and the degree and intensity of it have varied greatly. Scattered small wheals, confluent giant lesions and angioneurotic edema, involving any portion or most of the skin surface, have been present. In my experience the duration of the eruption has varied from four days to three weeks. Some of the patients complained of intolerable itching.

2. *Transient miliaria-like eruptions*

Cormia et al.[2] reported five cases of a generalized pruritic eruption involving the trunk and extremities, consisting of minute vesicles. In three of their patients the eruption disappeared while under continued treatment, in one it persisted for a week following completion of treatment, and in a fifth it appeared one week after completion of treatment for syphilis. Four of the five had a marked residual desquamation of the palms. Three of their patients had a history of previous active fungous disease.

3. *Erythema nodosum-like eruption*

Case 1: A 19-year-old soldier with a sero-positive primary syphilis developed three, moderately tender, inflammatory nodules on the pre-tibial surfaces on the fifth day of treatment with penicillin. Four additional lesions appeared on the pre-tibial skin during the next four days (therapy had been completed on the eighth day). All the lesions disappeared in two weeks.

Cormia[4] reports a smilar reaction that developed some time after treatment was completed. He states that the histological findings of one of the lesions were similar to those of erythema nodosum.

4. *Purpura*

Case 2: A 38-year-old soldier, seriously ill with cirrhosis of the liver and bilateral lobar pneumonia, on the fifth day of penicillin therapy (and oxygen) developed a mottled purpura, with erythema and edema of all the extremities and the lower abdomen. Three days later, because of the extreme edema of the skin, marked cyanosis and purpura, sulfadiazine was substituted for penicillin. In six days the edema and purpura had largely disappeared, but the pneumonic process had extended and the patient was much

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more ill. Penicillin was resumed, and within 24 hours the purpura, cyanotic erythema, and edema reappeared. In spite of this complication the drug was continued for an additional ten days, following which a slow recovery from the pneumonia took place. The skin returned to its normal state in four weeks.

5. *Erythematous, papulo-vesicular and bullous eruptions*

Several instances of erythemato-vesciular and papulo-vesicular eruptions[3] arising during penicillin therapy have already been reported. The various eruptions caused by penicillin seem to differ in no way from those induced by other drugs, whether administered orally or parenterally. But the location and distribution of penicillin eruptions are often striking and may occasionally mimic in the patient a recent or long forgotten dermatosis: (Mnemoderma of Jaquet?).

Case 3: "Reaction simulating a dermatophytid." A 24-year-old soldier complained of an "athletes' foot" infection of two weeks' duration with pain and swelling of the toes for three days. Several years before he had a severe eruption of the hands and feet, and each summer since then he has had mild attacks. The patient's temperature was 100.5°F. The diagnosis was coccogenic dermatitis and cellulitis, and penicillin therapy was prescribed. After the second dose of 20,000 units intramuscularly, the patient complained of severe itching of the hands, after which further treatment was discontinued. On the next day both palms and all the fingers were covered with minute inflammatory vesicles, and a similar eruption was present on the left foot. The crural areas showed marginated areas of erythema. Itching was intense. Subsequent treatment consisted of wet dressings to the infectious lesions of the foot, and anti-pruritic lotions for the "id-like" vesicular eruption. The left foot was completely well in ten days, and the vesicular eruption had completely subsided in three weeks.

Blood serum was collected 24 hours after the vesicular outbreak, and again ten days after the outbreak, for passive transfer tests in patients awaiting therapy for syphilis. All tests gave a negative reaction. Scratch tests with the same brand of sodium penicillin solution, one month later, were negative.

Case 4: "Reaction simulating a previous contact dermatatis." A 22-year-old soldier with secondary syphilis, on the second day of therapy developed a pruritic, erythemato-vesicular eruption of the palms, wrists and fingers. The patient stated that the eruption was identical to one caused by paints two years previously. Treatment for syphilis was not discontinued. The vesiculation and edema became quite intense, but did not spread. Eight weeks elapsed before involution of the eruption was complete.

Case 5: "Reaction simulating erythema multiforme." A 36-year-old married woman was under my care in October, 1941, for dermatitis characteristic of erythema multiforme, with iris-like lesions of the hands and forearms and mild arthralgias. She had had no previous or subsequent attacks. During February, 1946, she developed acute pyelitis. She was given sulfathiazole but this had to be discontinued after three days because of severe nausea; oral penicillin was substituted. Two hours after the first dose of 20,000 units she experienced a burning of the skin. On examination the following day she presented a typical exudative erythema multiforme involving the hands, forearms, face, thighs and legs, with herpetic lesions of the lips.

COMMENTS ON THE TYPES OF REACTIONS AND THEIR PATHOGENESIS

At present the pathogenesis of penicillin eruptions is unknown. The apparent increased frequency of urticarial reactions in patients previously treated with the drug makes it seem probable that a specific acquired hypersensitivity occurs in certain patients treated with penicillin.

Sulzberger[8] has summarized the various theories of the pathogenesis of these reactions to the drug as follows: "The three most likely hypotheses regarding pathogenesis of these vesicular eruptions appear to be: (1) a form of Jarisch-Herxheimer reaction in which the killed organisms rapidly liberate substances causing the reaction; (2) a synergistic or additive mechanism in which the administered penicillin plus the dormant unknown etiologic factor of the disease act together and elicit the local changes, and (3) the appearance of a vesicular drug eruption due to the penicillin alone but appearing only in sites peculiarly susceptible because of antecedent cutaneous disease."

Reactions to penicillin are independent of the mode of administration. The following cases are cited for purpose of illustration.

Case 6: "Urticaria and angio-neurotic edema with nebulized penicillin." A 52-year-old male, retired, with a chronic bronchiectasis of many years' standing, was started on penicillin inhalations (nebulized) because of an acute exacerbation of his pulmonary symptoms. Penicillin, 100,000 units per day, was administered by nebulization. On the third day a generalized urticaria with angio-neurotic edema of the lips and eyelids appeared. Treatment was immediately discontinued. Within three days the eruption had subsided. The patient gave no history of previous urticaria or allergies.

Case 7: "Urticaria from penicillin mouth wash." A soldier 26 years of age presented himself at the clinic with a generalized urticaria of 12 hours' duration. Two months previously he had had no untoward effects from a course of 2,400,000 units of penicillin given for a sero-negative syphilis. There was no history of previous urticaria or other allergies. Four days prior to the eruption a dentist had prescribed a penicillin mouth wash to be used every three hours, for the treatment of a Vincents' gingivitis. When the eruption appeared, medication was discontinued and the rash subsided at the end of three days. To prove the etiology of the urticaria a therapeutic test was instituted. One thousand units of sodium penicillin was given intramuscularly. In an hour pruritis appeared, and was followed by a severe giant urticaria that persisted for ten days.

REACTIONS TO PENICILLIN WHEN USED FOR TREATMENT OF CUTANEOUS DISEASE

A study of the case records of untoward reactions appearing during treatment of cutaneous diseases with penicillin brought to light the fact that chronicity or the presence of an eczematous type of eruption was the chief predisposing factor for an allergic skin reaction from this drug.

Of 86 patients with uncomplicated *acute* infectious dermatoses (impetigo contagiosa, acute pyoderma, acute furunculosis) receiving penicillin either internally or externally, only one patient showed an untoward effect. This was a dermatitis venanata from local use of the ointment.

Table 1 is a summary of the untoward reactions from penicillin when used in the treatment of chronic infectious dermatoses. A reaction rate of more than 30 per cent in this group cannot be considered a coincidence. In this connection it was interesting to note that in a recent report on 100 penicillin treated dermatologic cases, Cohen and Pfaff[1] list five sensitivity rashes, nevertheless they recommend the use of the drug in all their tabulated infectious dermatoses. Close scrutiny of their five reactions discloses the following: One of five cases of sycosis barbae developed a dermatitis venanata from local applications; one of three cases of streptococcus-sensitization eczema developed a dermatitis venanata, and two of five cases of eczematoid dermatitis, developed reactions consisting of an acute exacerbation in one, and an acute generalized vesicular dermatitis in the other. This reaction rate (four in thirteen) is strikingly similar to that in Table 1.

Cases have been observed in which an eczematous reaction was precipitated by internal administration of penicillin in a patient previously sensitized to penicillin externally and in which the mode of sensitization remained undetermined; but in which the generalized cutaneous eruption was precipitated on different occasions by both the internal administration and, later, external application of penicillin.

COMMENTS ON THE EXTERNAL USE OF PENICILLIN

Experience has shown that the use of penicillin externally, in the form of an ointment or cream is of value only in the most superficial infections, *i.e.*, impetiginous lesions. For deeper infections of the skin or mucous membranes, topical applications are probably of very limited value; furthermore, the treatment of superficial impetiginous infections with topical therapy of penicillin does not appear to be superior to the therapies that have been used heretofore.

Although penicillin reactions from topical therapy in the acute dermatoses have so far been negligible, in the light of recent experience it is predicted that an increase in such reactions will occur as more and more of the population are treated with penicillin. Of even greater importance than cutaneous reactions from topical use of penicillin is the probability that this usage of the drug for minor ailments will sensitize a large number of individuals. Obviously, this is likely to prevent or complicate the administration of penicillin when it is critically needed for serious systemic or organic infections.

With full appreciation of the potential hazard of sensitizing a patient to penicillin, and considering its questionable superiority over other drugs when topically applied, it is my belief that the use of penicillin externally should be limited to those patients who are known to be sensitive to other drugs.

Penicillin is now available in the form of ointments, mouth washes, and lozenges as well as in forms for parenteral and oral use. I am certain that we shall soon see this drug incorporated in lotions, films, confections and first-aid dressings that will be available over the counter. The indiscriminate use of penicillin for local infections of the skin and oral mucosa is to be condemned on the following counts: (1) The uncertain and questionable results as compared with formerly established remedies; (2) The potential hazard of sensitizing the patient to penicillin; and (3) The danger of precipitating an untoward reaction in a previously sensitized patient.

SUMMARY AND CONCLUSIONS

To date the frequency of cutaneous reaction to penicillin has been reported as 1 per cent to 2 per cent.

The types of cutaneous reactions have been classified into (1) urticaria and angioneurotic edema; (2) transient milaria-like eruptions; (3) erythema-nodosum-like lesions; (4) purpura; and (5) erythematous, morbilliform and papulo-vesicular or bullous eruptions. Reactions have appeared regardless of the route of administration—intramuscular, oral, inhalation, mouth washes or ointments.

The reaction rate to penicillin in patients with chronic infectious or eczematoid dermatoses may be as great as 30 per cent.

The value of topical therapy is questionable. This mode of therapy would seem to be indicated only in patients sensitive to the usual drugs, since the hazard of sensitizing a patient to penicillin is now firmly established.

For these reasons it is suggested that limitations

TABLE 1.—*Chronic Infectious Dermatoses Treated with Penicillin*

Disease	No. of Cases	Reactions	Type of Reaction
Sycosis Vulgaris	4	1	Dermatitis venanata from local application
Acne Varioliformis	1	1	Dermatitis venanata from local application
Impetigo Contagiosa—4-week duration	1	1	Generalized eczematous eruption
Impetigo Contagiosa with sulfonamide dermatitis	2	1	Acute weeping dermatitis
Folliculitis, chronic	3	1	Generalized eczematous eruption
Furunculosis, chronic	5	0	
Recalcitrant pustular eruption of hands and feet	5	2	Erythemato-vesicular eruption Urticaria-angioneurotic edema
Infectious eczematoid dermatitis	7	3	Eczematous reactions—2 Urticaria-angioneurotic edema
Total	28	10	

be placed on the indiscriminate use of penicillin ointments, mouth washes, lozenges, and other such modes of application.

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Estrogen Treatment of Chronic Urethritis in the Female

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Everett,[2] in 1941, described a urethritis with severe symptoms but only mild signs occurring in association with senile vaginal atrophy and responding readily to estrogen therapy. Independently, in the same year, Salmon, Walter and Geist[8] reported the relief of urinary symptoms, including stress incontinence, in post-menopausal women by parenteral or vaginal estrogen. In both publications emphasis is laid upon the proper selection of cases for estrogen therapy. Nearly identical criteria are enunciated: (1) severe urinary symptoms, principally frequency, urgency, urethral discomfort, and stress incontinence, are present with only minimal findings of the usual causes for them on urological and gynecological examination; (2) senile vaginal atrophy is present; and (3) there is usually slight eversion of the urethral mucosa which shows small areas of erosion and submucosal hemorrhage.

While urethritis of purely senile origin is by no means rare, it is more common to see more complex urethral and vesical disease complicated by senile vaginal atrophy. The symptoms of chronic urethritis and trigonitis in the female are often difficult to relieve, and this is particularly true in the older age groups. Experience since 1943 in the treatment of 92 post-menopausal women with these conditions complicated by senile vaginal atrophy has shown that stilbestrol applied vaginally is a valuable adjunct to orthodox therapy in approximately three-fourths of the cases. Occasionally, stilbestrol alone will bring about complete relief; but in the presence of pyuria, bacilluria, chronic proliferative changes in the urethra, important degrees of relaxation of the pelvic floor, or other significant urinary tract pathology, the estrogen alone will fail completely or only partially relieve the symptoms. On the other hand, symptoms persisting after the removal of these abnormalities by appropriate urologic or surgical treatment, can usually be alleviated by treating a complicating senile vaginal atrophy. When vaginal estrogen is used concurrently with orthodox local treatment to the urethra in the treatment of chronic proliferative urethritis complicated by senile vaginal atrophy, symtomatic relief is generally achieved more rapidly and with less untoward reaction. Although long periods of symptomatic relief may be produced by estrogen therapy, the use of these drugs can in no sense bring about permanently beneficial changes. In urethritis apparently exclusively of a senile nature, relapse occurs in from several weeks to several months after discontinuance of the medication, and a similar remission of symptoms may be produced by another course of the drug. Prolonged estrogen therapy is undesirable and unnecessary for palliation. When estrogen is used together with orthodox local treatment, resultant cure is attributable to the urologic therapy rather than to the use of the estrogen: although the latter frequently serves as an important adjunct in the healing of the pathologic process, it is in itself incapable of effecting permanent cure.

It is not always necessary to treat senile vaginal atrophy to relieve the symptoms of chronic urethritis, nor is symptomatic improvement on estrogen therapy an excuse for an incomplete urological examination. Recognition of urinary symptoms caused by estrogen deficiency is often of considerable importance in the known presence of other diseases of the urinary tract; for example, four out of six patients with Hunner ulcer in this series experienced marked relief of urinary symptoms of urethral origin from estrogen therapy although the ulcer itself was not influenced. Not infrequently, the symptoms from chronic cystitis of bacterial

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origin may be reduced in intensity. In general, the urinary symptoms most apt to respond to estrogen therapy are, in this order: urethral discomfort, urgency, frequency, and stress incontinence.

The diagnosis of senile vaginal atrophy is made by history and physical examination corroborated by vaginal smear stained by the iodine vapor method of Mack.[5] This consists of exposing a vaginal smear dried in air to the vapors of fresh Lugol's solution for two or three minutes; the smears are then graded according to the glycogen content of the cells. A fairly close approximation may be obtained more easily by flooding the slide with Gram's iodine solution and reading it wet. This laboratory test is of value in grading the degree of estrogen deficiency and not infrequently will demonstrate estrogen sufficiency in postmenopausal women; it is most useful as a method of following the effects of therapy. It is not a substitute for physical examination because of the frequent decrease in the glycogen content of vaginal epithelium in local infections of the vagina and in certain constitutional diseases such as tuberculosis and hypothyroidism (Mack[6]).

Estrogen therapy in this series of cases has been almost exclusively the cyclical use of 1/10 milligram stilbestrol nightly in the form of vaginal suppositories for 21 days followed by abstention from their use for seven days to prevent endometrial hyperplasia and withdrawal bleeding. Clinical improvement is usually noted between the tenth and twenty-first day. The suppositories are continued cyclically for from two to four months, when they may be discontinued, since patients may then go several months before relapsing. If estrogenization fails to occur, a natural estrogen is used. Toxic effects are rare with this dose of stilbestrol and consist principally of withdrawal bleeding and of vaginal discomfort after use of the suppository. If bleeding occurs, the desired effect may be obtained by using a smaller dosage. The cause of the vaginal discomfort is not clear, but patients who experience it are usually able to tolerate either stilbestrol ointment or a natural estrogen. Oral and parenteral estrogens have been used occasionally with less beneficial effect and more untoward reactions than with vaginal suppositories. Estrogens have been used reluctantly or not at all when there is a history of carcinoma of the generative organs or breast or of preclimacteric menorrhagia.

The rapid subsidence of urinary symptoms under estrogen therapy in the occasional case of urethritis of purely senile origin is sufficiently dramatic to tempt one to employ this agent on the basis of history and casual inspection alone. This practice is mentioned only to be condemned. While senile vaginal atrophy is extremely common, urinary symptoms on the basis of estrogen deficiency are much less often seen. It is also unnecessary, and often contraindicated, to treat senile vaginal atrophy whenever it exists in conjunction with disease of the urinary tract. A complete urological investigation is a prerequisite to treatment directed at the relief of urinary symptoms. Major diseases of the urinary tract such as tuberculosis and carcinoma of the bladder frequently cause the identical symptoms of which individuals with only senile urethritis complain. The patient should be investigated for carcinoma and precancerous lesions of the generative organs and breast. Finally, because of the possible carcinogenic action of sterols, lengthy persistence in administration of estrogen without strong indications is inadvisable.

MECHANISM OF ACTION OF ESTROGEN

The mechanism of action of estrogens in relieving urinary symptoms is not entirely clear. Salmon, Geist and Walter[3,8] suggest that the female urethra, sharing a common embryological origin with the distal vagina and having a close anatomical relationship with the vagina, is similarly influenced by estrogen. The histology of the female urethral epithelium is variable but resembles, in its distal portion at least, that of the vagina. According to Hinman,[4] the distal two-thirds of the female urethra is lined by squamous epithelium. Aschoff[1] noted considerable variation of the distribution of transitional, columnar, and squamous epithelium, stating that the latter is present at the meatus and extends for varying degrees inward. Petrowa *et al.*[7] made detailed studies of 45 normal female urethras obtained at autopsy, finding the entire urethra lined with squamous epithelium in 15 cases. When urethral and vaginal smears are made simultaneously and stained by the iodine vapor method, the urethral cells appear identical both in morphology and in glycogen content. The epithelium of the distal urethra participates in senile atrophy along with the vaginal epithelium, and as estrogen is supplied the improvement in the epithelium as demonstrated by smears is parallel. Vesical epithelium stains only faintly with iodine regardless of estrogen deprivation or sufficiency. It is probable that the most important action of estrogen therapy in alleviating the symptoms of women with chronic urethritis associated with estrogen deficiency is in improving the health of the squamous epithelium of the urethra, thus rendering it less sensitive to mechanical, chemical, and bacterial trauma. The improvement of the vaginal epithelium renders that organ less likely to serve as a focus for ascending urinary tract infection. The absence of urinary symptoms in many women with advanced senile vaginal and urethral atrophy is unexplained.

SUMMARY

1. Estrogen therapy, in the form of vaginal suppositories of stilbestrol, is of value as an adjunct to the orthodox urological treatment of chronic urethritis associated with senile vaginal atrophy in three-fourths of the cases.

2. Occasionally a purely senile urethritis occurs which responds to estrogen alone by a long period of symptomatic relief.

3. This beneficial action is probably due principally to the direct effect of the estrogen upon the urethral epithelium.

4. The importance of a thorough investigation of the patient, including complete urological examination, before employing estrogen for a urinary complaint is emphasized.

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The Present-Day Treatment of Asthma

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THE treatment of bronchial asthma remains much the same today as it was in 1931, namely, eradication of the cause—allergic, infectious, or both, as the case may be. When eradication is impossible or inadvisable, separation of the patient from the specific allergic causes or immunization to them is indicated. In this connection it is still true "that a careful and painstaking history is essential in every case of asthma, and the physical examination should include the investigation of those organs most frequently found to be a site of focus of infection. Laboratory measures should be employed freely."[12]

The concept that bronchial asthma may be due to a focus of infection is not as firmly settled as it appeared to be in 1931. Bacterial infection, it is now felt, may play a dual role. In one, it acts as a primary cause, either by virtue of an allergy to the bacteria involved or by other devices not so easily explained, while in the other role, bacterial infection paves the way for sensitization or upsets allergic equilibrium.[8] It is not at all uncommon to find an acute and sometimes intractable attack of asthma following an upper respiratory infection, such as an ordinary cold, a mild paranasal sinusitis, or an attack of influenza. It well may be that in these cases we are dealing with an infectious type of bronchial asthma, and often a series of immunizing injections of a mixed catarrhal vaccine will serve to protect the patient from subsequent attacks.

On the other hand there is a strong feeling today, on the part of allergists and rhinologists alike, that these infections, particularly those of the paranasal sinuses, are secondary to the abnormal condition of the allergic nasal structures and that, once established, sinus infection and polyposis support the allergic manifestation.[8] The value of sinus operations in cases of bronchial asthma in which sinusitis exists is still open to question. Clinical experience indicates conservatism except in marked cases of pansinusitis, or where the general health of the patient is being disturbed. The advent of penicillin has resulted in its employment in sinusitis by inhalation as an aerosol. In some patients with severe asthma, relief from persistent bronchial spasm followed the clearing of infection in the sinuses by this means.[2]

In the present-day treatment of asthma, all infectious processes in an asthmatic should be cleared up as far as possible, and every measure instituted to improve the hygienic condition of the patient. No case can be said to have been thoroughly investigated by an allergist unless this is done at the outset. One thing that is most provoking to allergists is the attitude on the part of a portion of the laity and some of the medical profession that all an allergist does or needs to do in an allergic investigation is a series of skin tests. The present-day treatment of asthma will fall far short of its goal if that is all the allergist does or is presumed to do.

LITTLE ADVANCE IN SKIN TESTS EVALUATION

The evaluation of skin tests today is similar to that of 15 years ago. No particular advance has been observed. A positive reaction by scratch or intradermal method to inhalants, epidermals or pollen still possess a fair degree of reliability. However, food reactions, except in children, in the opinion of the author, are still open to doubt and unless transferable should be corroborated by clinical trial. Though skin tests still remain a valuable instrument in the hands of an allergist, they are not to be used to the exclusion of an overall picture of the patient from a medical point of view in which due regard is paid to physical, organic, and psychological findings.

In recent years, an old theory and one that most of us considered long ago discarded, namely, that bronchial asthma is a form of neurosis, has been renewed.[15,16] Some psychologists are boldly asserting that if only an asthmatic can be made to talk

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out his inner anxieties, conflicts, angers, woes and desires, his asthma will disappear. Asthma, they contend, is merely a psychogenic manifestation of environmental influences and circumstances. In most instances, they claim, it is a definite psychosis.

Without going into a prolonged discussion of this phase of the subject it is sufficient to state that most clinicians have long realized that emotional upsets may disturb the allergic balance and by doing so, in some cases, instigate an asthmatic attack. Since the physiological influence of emotions on adrenalin secretion, heart rate, peristalsis, and other organic functions of the body is well known and recognized, it is not surprising that that influence should also be sufficient to produce an attack of dyspnea. In very few instances, however, is such a disturbance the primary cause of an initial attack. Bronchial asthma with its distressing dyspnea, and the anxiety it causes, is very likely to affect the disposition and temperament of a patient as well as cause his family concern. These aspects must be taken into consideration in treatment. Over-anxiety of parents, a patient's inner rebellion against the chronicity of the disease, as well as other psychological factors may well result in secondary spasms. The effect of asthma on the personality of a child or adult, therefore must be treated systematically and together with the allergic or infectious angle.

USEFUL DRUGS IN ASTHMA

Drugs used in the symptomatic treatment of bronchial asthma in 1931 remain in good usage today. Epinephrine 1-1000 by hypodermic injection is the most valuable drug for acute paroxysms. Ephedrine sulfate, orally, is extremely useful in preventing, aborting and relieving seizures, while potassium iodide is one of the favorite drugs to help liquefy the tenacious mucous plugs in an old case of bronchial asthma. Such measures as the use of peptone, typhoid vaccine, milk or tuberculin, ultraviolet exposures, x-ray and the administration of calcium, which were recognized 15 years ago to give no constant or consistent therapeutic effects, today, for all practical purposes, have been discarded.

Epinephrine 1-100 by inhalation for relief of asthmatic paroxysms was first used only a little more than ten years ago.[11,17] Since then, it has been employed extensively and with great benefit. A special nebulizer capable of producing a very fine spray is required. The patient is instructed to synchronize his inspirations with pressure on the bulb of the nebulizer. Only a few inhalations are necessary for relief, which usually is instantaneous. Epinephrine 1-100 is simple to use. The outfit can be carried around in the patient's pocket or in a purse. Inhalations may be repeated every hour or less and there is an almost complete absence of side effects.

In order to increase the effectiveness and prolong the action of epinephrine 1-1000 subcutaneously, epinephrine in oil administered intramuscularly has come into common usage. One of the latest slowly absorbing epinephrine solutions to be recommended is one in which the epinephrine base is suspended in a mixture of peanut oil, anhydrous wool fat, and white wax to which is added ascorbic acid.[8] The use of a slowly absorbed epinephrine solution in addition to the employment of epinephrine 1-1000 subcutaneously results in an increased prolongation of the free interval between attacks. However, care must be exercised in the use of oil solutions since not infrequently instances of allergic reactions to the oil occurs.

Aminophylline intravenously and rectally is another addition to the allergist's armamentarium against bronchial asthma. Orally, aminophylline is most effective when combined with ephedrine, where it seems to possess a synergistic action. Intravenously, it is used in doses of 0.25-0.5 gm. (3¾-7½ gr.). The smaller dose should be used first, and then if no relief is obtained the larger dose may be employed. Rectal suppositories of the drug have been successful in many cases of severe intractable bronchial asthmas in doses of 0.5 gm. (7½ gr.) combined with sodium phenobarbital.

Aminophylline probably acts directly upon the bronchial musculature, the drug causing a relaxation of the spastically contracted circular muscle, thus re-establishing the normal diameter of the bronchi.[19] Prescribed night and morning, it may keep many an asthmatic free from paroxysms.

In status asthmaticus glucose administered intravenously often yields encouraging results. Fifty cc. of 50 per cent glucose solution is advised. Often 5 per cent glucose intravenously gives equally good results. The benefits of it may be due to the replacement of glycogen driven from the liver by excessive use of epinephrine, or may be due to the fact that patients with asthma and hay fever frequently have a lowered fasting blood sugar and an increased sugar tolerance.[6]

Some years ago the author[13] reported the use of intratracheal instillations of iodized oil in bronchial asthma. The results in 50 cases of intractable asthma in which every other method of treatment had been employed previously, seemed to justify a report of its effectiveness. Two years later, Fuchs[10] reported a case of spontaneous pneumothorax in an asthmatic patient treated with iodized oil, and Moore[18] reported a case of acute iodism and also a case of broncial pneumonia occurring during employment of it.

Although no untoward reactions with the use of iodized oil intratracheally have been experienced by me, the reports of these men and of others have led me to conclude that the procedure is not without danger and should be employed only when all other measures have failed. In all probability, the improvement following use of it is due almost entirely to the mechanical effect of the oil in washing away mucous plugs and viscid secretion in the bronchi.

USE OF HELIUM

The use of helium as a new therapeutic gas in obstructive dyspnea was introduced by Barach in 1934.[3] In 1938, Barach and Cromwell[4] described the physical basis for the employment of helium in the treatment of asthma. Since then, it has become an accepted method of treatment where mucous plugs are interfering with the movement of air through the bronchial tubes. Since the velocity

of movement of gas through a constricted orifice is inversely proportional to the square root of the density of the gas, the pressure required for the movement of an 80 per cent helium-20 per cent oxygen mixture is almost one-half that required for air or for oxygen alone.[5] The use of helium-oxygen unfortunately is restricted because of expense and in some communities because of difficulty in obtaining it. The best method of administration is by means of a special tent designed for the purpose, although it may be inhaled from a tank using a B.L.B. mask. In chronic asthmatics it is particularly useful.

EXPERIENCE WITH ANTIHISTAMINIC DRUGS

The most recent advent in the therapy of bronchial asthma is the use of antihistaminic agents, Beta-dimethylaminoethyl. Benzhydryl Ether, Hydrochloride and Pyridil-N'benzyl-N'dimethylethylene-diamine Hydrochloride, marketed under the trade names of benadryl and pyribenzamine. The lay press was quick to grasp the importance and significance of these drugs and, as often happens in instances of this sort, was responsible in a great measure for the exaggeration of the usefulness of them. Though it is undeniably true that these drugs are of great symptomatic importance in the treatment of many allergies, very particularly the dermatological allergies, it is equally true that they have many deficiencies. In bronchial asthma, reports of their value are mixed. Eyermann,[7] for example, claims 65 per cent good results, while Feinberg[9] states that in 50 cases of asthma, mainly of the perennial type and etiology, definite relief of symptoms was observed in only 12 per cent. Some observers state that asthma is not benefited by benadryl at all.

The release of histamine or a histamine-like substance has long been held by some investigators to be responsible, if not in whole then in part, for most allergic symtomatology. Further, it has been held that the common denominator of the allergic diseases, and of some diseases not now recorded as allergic, is an underlying problem of edema provoked by the local release of histamine or a histamine-like substance.

With this conception in mind, treatment with an antihistaminic agent is entirely consistent and if histamine were the only deleterious result of the allergic reaction this type of therapy should work admirably. We should get one hundred per cent results. However, it is evident that there are other factors involved, and complete relief from all symptoms with antihistaminic agents is exceedingly rare. At best, the results are but temporarily palliative. This is true of pyribenzamine as well as benedryl. With pyribenzamine, Arbesman and his associates[1] found benefit in 46 per cent of their seasonal cases and 37 per cent of the chronic type. Feinberg[9] in 121 patients with asthma or allergic cough reports 34 (or 28 per cent) actually benefited, but goes on to say that "the practically complete and rapid relief of the asthmatic attack obtainable from the use of epinephrine hypodermically was not noted with that of pyribenzamine orally. Where relief was present it was usually moderate."

The author's experience with antihistaminic agents in a small series of cases of bronchial asthma has not been even as promising as those quoted above. In 35 cases of perennial asthma, in which all other treatment was temporarily suspended in order to give pyribenzamine a fair trial, only eight patients reported improvement, and in three of the eight the report of the improvement was dubious. In none was complete relief and freedom from attacks attained. Benadryl was used in 25 cases in similar manner and five of them reported improvement. All these patients stated that at one time or another even while using the drug they had tightness of the chest and some dyspnea.

It may be concluded, then, that although benadryl and pyribenzamine are valuable drugs for occasional temporary relief in bronchial asthma, they cannot be depended upon for complete relief, nor can they be depended upon to work in every case. Their value is further handicapped by such side effects as drowziness, vertigo, nausea, tachycardia, and weakness almost to the point of collapse. It is true they have crystallized our concept of the importance of the release of histamine in causing symptomatology in allergic reactions, but what effect long continued and repeated use of the drug may have is yet to be determined.

SUMMARY

The specific treatment of bronchial asthma consists of eradication of the cause, allergic, infectious or both as the case may be. When eradication is impossible or inadvisable, separation of the patient from the specific allergic causes, or immunization to them, is indicated. To arrive at the primary cause of bronchial asthma requires a careful and complete investigation, using not only skin tests, valuable as they are, but also keen perceptive powers and a scrutinizing physical examination which must be complete and thorough. This point is stressed most strongly.

Operative procedures on the paranasal sinuses for accompanying sinusitis should be performed only if strong indication exists for operation. Where pansinusitis exists, the infection and infective process should be removed, but extreme care should be taken in assuring a patient that this will be an end to his attacks. All too often such promises are unfulfilled. The advent of penicillin aerosol therapy in paranasal sinusitis represents an advance that at this time appears impressive in clearing up many cases of infectious sinusitis and consequent attacks of asthma.

The psychological effects of bronchial asthma on an individual should not be ignored, but instead studied and corrected in order to decrease the severity of attacks and the frequency of them.

For acute attacks of asthma nothing surpasses epinephrine 1-1000 subcutaneously. In prolonged attacks epinephrine may be repeated, and in addition such drugs as aminophylline intravenously or rectally, helium and oxygen by inhalation, and 50 cc. of 50 per cent glucose intravenously are helpful. The inhalation of epinephrine 1-100 is of inestimable value in many cases for it may give

almost immediate relief, while orally ephedrine sulfate is still useful in preventing attacks. Epinephrine in oil administered intramuscularly prolongs the action of the drug. Potassium iodide is still helpful in liquefying tenacious mucous plugs. Iodized oil instillations should be employed only as a last resort.

The popular antihistaminic agents, benadryl and pyribenzamine should be used with caution. In bronchial asthma, especially the perennial type, they do not appear to be as valuable as in other allergic conditions. The side effects are very disturbing and limits the use of them.

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Fracture of the Olecranon Process Due to Muscle Pull With the Forearm in Hyperextension

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THE CAUSES of fracture of the olecranon as noted in the literature are (1) Direct violence such as a fall on the point of the elbow or a direct blow to the olecranon; (2) Indirect violence such as a fall on the outstretched hand with the elbow in flexion while the biceps is strongly contracted; (3) Combination of direct and indirect violence, i.e., both muscle pull and direct violence acting together.

MacAusland[5] in 1928 stated that the majority of these fractures were due to direct violence, a fall upon the elbow being the most frequent cause. Of the 48 cases reported by Daland[1] in 1933, only 36 had data on the type of injury. And of these 36, four were due to direct blow to the olecranon; ten fell from a height; eight fell from moving bicycles or autos; 17 received injuries by falls to the floor, street or ice. It was not certain how many actually fell on the outstretched hands and how many struck the elbow directly. Watson-Jones[13] in the third edition of his textbook states that fractures of the olecranon, like fractures of the patella, are "due to the opposing strains of sudden forcible flexion of the joint against the resistance of a strong muscle. The olecranon process is pulled away by the triceps."

Scudder[10] gives as the cause of fracture of the olecranon, a direct blow upon the olecranon together with violent muscular contraction of the triceps. Perkins[7,8] stated that these fractures are due to direct violence, a fall on the point of the elbow and indirect violence caused by forcible flexion of the elbow while the triceps is strongly contracting; this latter type of fracture happens as the result of a fall.

None of the foregoing mention fractures of the olecranon due to muscle pull with the forearm in hyperextension. In a careful search of the literature in American medical journals from 1916 on, in four instances only was mention made of hyperextension as one of the causes. Kellogg Speed[11] states that 0.85 per cent of all fractures involve the olecranon. He is of the opinion that 70 per cent of olecranon fractures are caused not by direct violence but by "a sudden increase in tension of the pull of the triceps tendon." As unusual causes he states that "muscular action by contraction of the triceps has caused this fracture by over-exertion



Figure 1.—Roentgenogram shows fracture of the tip of the olecranon process as described in the text.

in throwing a ball or other object. Hyperextension of the forearm may also cause fracture of the olecranon because of the fact that the tip of the process impinges against the olecranon fossa of the humerus." Of Eliason's[2] 138 cases, the majority were due to direct violence. The list included falls on the elbow, auto, motorcycle and trolley accidents, athletics or direct blows to the elbow. He does not elaborate on the causes due to athletics. One case was due to a severe pull at the elbow. He says that "cases are reported when the beak of the olecranon has been broken by hyperextension."

Acording to Key & Conwell[4] the most common mechanism is a fall on the semi-flexed and supinated forearm. "As the hand strikes the ground, the muscles are tensed to break the fall and the powerful triceps snaps the olecranon over the lower end of the humerus which acts as a fulcrum." In their opinion the next most frequent cause is direct trauma. Hyperextension is given as a rare cause of fracture of the olecranon; the most rare cause by muscular violence as in throwing.

Vanstane[21] in 1940 cited a specific case of an incomplete fracture of the olecranon due to hyperextension in a bowler.

CASE REPORT

A professional boxer, negro, age 22 years, came under our care on August 20, 1946, with the history that on or about the first of the year while engaging in a boxing match he had injured his left elbow. He stated that he jabbed with his left hand, using "plenty of power." His opponent ducked and the patient struck "air." He experienced immediate sharp pain at the tip of the left elbow. He did not receive medical attention and for one month following this match he refrained from boxing because of pain in the left elbow. Since then he had engaged in four professional matches, during which he experienced pain only on complete extension of the elbow. Examination showed no swelling or atrophy at the elbow joint; extension, supination and pronation were complete and free of pain; flexion, however, was incomplete to 122 dgerees, whereas that of the right elbow was 135 degrees. Slight tenderness was noted over the tip of the olecranon. Radiograph taken on August 20, 1946, showed a fracture of the tip of the olecranon process of the left ulna; the fragments were in good position witb slight separation and callus formation. Treatment consisted of physical therapy. Re-check radiograph taken on November 15, 1946, was substantially the same. Clinically there was complete healing with complete motion of the elbow joint, no pain or tenderness.

CONCLUSION

1. Fracture of the olecranon process occurs either as a result of direct or indirect violence or a combination of both.

2. In the indirect type, the fracture occurs with the forearm in flexion, the fracture being due to violent muscular contraction of the triceps.

3. A case is presented of a rare cause of fracture of the olecranon, namely, muscle pull with the forearm in hyperextension.

4. Separation of the fragments is slight and complete healing apparently took place by fibrous union with perfect functional results.

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Neurological Complications to Treatment With Rabies Vaccine

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MANY physicians have been confronted with the problem of deciding when or when not to give a child bitten by a dog the series of anti-rabies vaccine injections. Fortunately, often the child or adult has been bitten by a family pet or neighbor's dog during a playful tussel. But what about the stray dog or cat, especially when it is subsequently not located for study by the health department? The wound site, depth, degree of tissue injury, and the time interval between the bite and its proper cauterization are the primary factors first to be considered. If in our judgment there is a chance of rabies developing, we proceed with the series of subcutaneous injections of rabies vaccine. However, some physicians have had or have read about local, central nervous system, or generalized reactions to the vaccine that may make them hesitate to initiate the series. For these and other reasons they may err in hazarding the patient's health by withholding the vaccine treatment because of lack of knowledge of the facts about rabies vaccine reactions.

Just what are the dangers in vaccine treatment against rabies? Have there been many cases here or elsewhere of complications to treatment? If so, how do these dangers compare with the chances of getting rabies? These and many other related questions prompted us to survey the files of the Los Angeles County Hospital of cases of rabies treatment reaction admitted over the last five years and report the findings on these cases and those from the literature to date.

In the five years, 1940 to 1945 inclusive, we found cases of complications of rabies vaccine treatment admitted to the contagious disease unit of the Los Angeles County Hospital. All five cases presented mainly a neurological clinical pattern and were true examples of complications due entirely to treatment with rabies vaccine. All five cases recovered.*

1. *Incidence, Morbidity and Mortality*

California is one of the leading states in the nation in incidence of animal rabies. The California State Department of Public Health *Bulletin* (June, 1946) reports a total of 911 cases of animal rabies in the state in 1944, and 581 in 1945. In 1944 California had almost 10 per cent of the total reported animal rabies cases in the country with only Texas and Louisiana reporting more cases. Of California's 911, Los Angeles County in 1944 had 730 cases, 80 per cent of the state's total or approximately 7 per cent of all the animal rabies cases in the United States!

During the five-year period covered by this paper (1940-1945 inclusive), in Los Angeles County there was a total of 2,167 cases of animal rabies reported with 2,389 people receiving the Pasteur treatment by the Los Angeles City and County Health Departments. Two of our cases* came from the health departments, representing an incidence of severe complications among this group of one per 1,194. If this is at all representative it is higher than that reported previously where incidence of complications varies from one per 3,688 treated (0.027 per cent)[6,8] to one per 6,250 treated (0.016 per cent),[5] with one author reporting an incidence as high as one per 1,200 (0.083 per cent).[4]

In Los Angeles County there were three human rabies deaths during this five-year period.

As McKendrick points out, we should never withhold treatment due to fear of complications to rabies vaccine. In 1934 he reviewed 69,541 case histories of people who had received Pasteur treatment after being bitten by animals known to be rabid, and he found a mortality rate of 0.23 per cent in contrast to the expected mortality rate of 16 per cent in those bitten by a rabid animal without receiving treatment. Among those with complications of rabies vaccine treatment, the mortality varies from 10 per cent to 16 per cent.

2. *Types of Complications*

Horack[4] in one of the most thorough studies of rabies vaccine complications has classified the reaction into six groups, as follows:

1. Generalized urticarial rash. 2. Delayed, tuberculin type reaction at the site of injection. This is the commonest. 3. Similar to 2, but more severe with accompanying fever, headache, nausea, and generalized lympadenopathy. Such cases are prone to develop paralytic complications. 4. Simple neuritis, usually transitory, involving the cranial, especially facial, or peripheral nerves. 5. Dorsal-lumbar myelitis usually occurring in the second or third week of Pasteur treatment with a low mortality rate and complete recovery the rule. 6. Landry type of ascending paralysis with sudden onset: one-third of these cases develop bulbar paralysis resulting in death.

Bassoe and Grinker[1] reported a disseminated encephalomyelitic type distinct from the six groups mentioned above. Rarely encephalitis may occur alone. The incubation period usually varies from ten to seventeen days after initiating treatment, but it can be prolonged to four months.

In general, the more severe cases appear earlier than the mild ones.[3]

3. *Etiology*

Complications may develop in persons never bitten by a rabid animal or exposed to rabies, but

* One case that was admitted since this was written, age two years, died. It will be reported in another paper.

who have merely been given Pasteur treatment; in other words, it is evident that treatment alone can be responsible. Complications occur in either sex, and at any age, but less frequently in children and older people. The more intensive the treatment, the more likely reactions are to occur. The etiological factor is controversial,[1,3,12,13] with the type of vaccine as the focal point of discussion. Many physicians believe the reactions occur as a result of anaphylactic[11] or allergic action.[4]

According to Bassoe and Grinker[1] the pathological studies suggest that vaccinal lesions represent an attenuated rabies virus disease caused by the vaccine; toxic reactions occur in the ganglion cells without Negri bodies ever being found.

The type of vaccine used in the Pasteur treatment bears a direct relationship to the paralytic complications, according to Bassoe and Grinker, with the greatest number of accidents occurring with large doses of fresh virus; the lowest occurring with the carbolyzed virus vaccines, the usual preparation used today.[3,10] It is possible that the fixed virus is the real etiological agent, since in a few cases the fixed virus has been recovered from the spinal cord.[3]

At the Pasteur Institute it is believed that overexertion during treatment is significant in precipitating neurological complications.

4. *Review of Cases*

This series of cases with central nervous system involvement following rabies vaccine includes five different clinical entities. Encephalitis alone, encephalitis with spinal involvement as well as one with pure spinal cord manifestations are included. (See Table 1.) The number of injections of rabies vaccine ranged from 4 to 22 before onset of symptoms. All cases had daily injections as shown on the chart except case 4 who received two daily except for the first and last day, when only one was given. This case and case 3 were the only two bitten by a dog known to be rabid. In the other cases the animal was not found, so no chances were taken and prophylactic injections were given. Cases 2 and 3 were terminated because of the onset of symptoms. No reason was given as to why the physician stopped at eight injections on case 5. All cases were admitted to the Communicable Disease division after the onset of neurological symptoms following treatment given outside the hospital.

In Table 2, all cases showed spinal fluid pleocytosis with a complete lack of correlation between severity of clinical course and the maximum number of cells present. One case had a rapid onset with coma on entry to the hospital, followed by a stormy course with the maximum number of five cells, while the next most severe case in the series had a maximum number of fifteen cells on repeated spinal fluid examinations. Case 1, running a relatively mild clinical course, had the largest number of cells. Lymphocytes were the predominating cells found; the Pandy test ranged from negative to 3 plus, and it, too, was unrelated to the severity of clinical symptoms.

The symptoms in Table 3 were those usually attributed to central nervous system involvement, such as headache (five cases), stiff neck (two cases), muscle spasm, urinary retention (two cases), paraesthesias, and, in one case, difficulty in walking. Table 3 shows the main clinical findings to consist of muscle spasm of the back or neck, reflex changes, urinary retention, muscle weakness of varying degree, and vague sensory changes, the latter two usually being limited to the lower extremities. Fever usually remained under 102.5°F. with the exception of case 3 (complicated by pneumonia) and case 5, given shock therapy. These

TABLE 1.—*Times of Onset and Treatment of Complications*

Case No.	Diagnosis	No. of Injections	Day of Onset After First Injection	Age and Sex	Treatment	Result When Discharged
1.	Encephalomyelitis	21	21	17 F	Symptomatic	Improved
2.	Meningomyelitis	13	12	15 M	Prostigmine Vtamin Complex	Recovered
3.	Encephalitis	4	4	40 F	Stimulants I.V. Glucose Oxygen Sulfamerazine Prostigmine	Improved
4.	Transverse myelitis	22	12	25 M	Symptomatic	Improved
5.	Meningo-encephalitis	8	10	9 F	Typhoid "Shock" Therapy	Improved

TABLE 2.—*Spinal Fluid Findings*

Case No.	Diagnosis	Maximum Cells (Cmm.)	Maximum Protein mg. %	Pandy	Maximum Pressure in mm., Water
1.	Encephalomyelitis	230 (Lymphs Predominant)	83	2 +	240
2.	Meningomyelitis	28 (98% Lymphs)	43	Neg.	250
3.	Encephalitis	5 (Lymphs)	55	Trace	175
4.	Transverse myelitis	13 (Lymphocytes)	65	Trace	175
5.	Meningo-encephalitis	15 (Lymphocytes Predominant)	57	3 +	250

cases follow the general clinical pattern of those reported in the literature.

The treatment and course (Table 1) were mainly symptomatic, with gradual improvement. One case required treatment for urinary retention while another remained in coma four days after entry to the hospital and therefore was given typhoid vaccine shock therapy. The latter case (5) recovered following four intravenous injections of typhoid vaccine given two days apart in increasing doses of 100 million, 250, 500 and 1,000 million, respectively.

5. *Case History (Case 2)*

A 15-year-old Caucasian male was admitted to the hospital, with the chief complaints of urinary retention; numbness and tingling of the feet; difficulty in walking; a stiff back of approximately five days' duration, and a stiff neck for two days.

Four weeks previously the patient had been bitten in the right hip and left elbow by a stray dog and the wounds were cauterized about ten minutes later at the city emergency hospital. Since the dog remained undetected, the patient was given Pasteur treatment by the health department, starting two and a half weeks before entry, or ten days after the dog bite. He received 13 consecutive daily injections. Injections had been discontinued five days before entry because of the onset of the above symptoms.

The salient physical finding on admission included: temperature of 100°F. rectally; moderately severe neck and back stiffness and abdominal rigidity; paresthesias and hypesthesias from the upper abdomen (T-7) down to the mid thigh (L-2 and 3), abnormal reflexes, including absent abdominals and positive right Babinsky. There was muscle spasm in the back, neck, and hamstrings with some lumodorsal scoliosis to the left, and tenderness in the trapexius muscle which persisted for a week after entry. The patient had to be catheritized because of urinary retention for two days after admission, after which he voided voluntarily. The temperature never rose above 99°F. (oral).

The laboratory results were: The blood count, urinalysis, blood Kahn and Wasermann were negative. The bacteriological and chemical analysis of the spinal fluid was negative. The hydrodynamics of the spinal fluid were also negative with clear fluid obtained with 28 cells found per cu. mm., 98 per cent of which were lymphocytes. The Pandy test was negative.

The treatment was symptomatic, including high supplementary vitamin intake, especially of the B-complex. Fifteen mg. of prostigmine bromide was given in each of three injections in the first 48 hours to stimulate micturition.

The course in the hospital was uneventful, with gradual recovery and relief of the main symptoms and neurological signs. The patient was discharged with the diagnosis of post-rabies vaccinal meningomyelitis nine days after entry, condition improved.

6. *Discussion*

One of the conditions most commonly confused with these cases was anterior poliomyelitis which was usually an entering diagnosis to be ruled out. The onset a short time after initiating Pasteur treatment forms the main differential feature favoring the diagnosis given in the above cases. Rabies itself, sometimes feared to be present at the onset, is ruled out principally by the clinical course; also the incubation period in cases complicating rabies vaccine treatment is usually between ten and seventeen days, that of rabies three to eight weeks.

The leading pharmaceutical companies that distribute the so-called Semple type of vaccine or its modifications, dispense a carbolized killed vaccine made from rabbit inoculated brain and cord substance. Fourteen daily subcutaneous inoculations of Semple type carbolized virus vaccine is the recommended dose for the average case with two injections daily for 14 days in the more severe cases such as dog bites of the head. There are no contraindications to treatment. Luetics and alcoholics, however, should be kept under close observation.

Horak found that the more severe reactions occurred often in people with allergic history (87.5

TABLE 3.—*Clinical Features*

Case No.	Symptoms	Main Clinical Findings	Maximum Fever
1. Encephalomyelitis	Headache	Muscle spasm, neck, back, lower extremities	101°
2. Meningomyelitis	Urinary retention Paresthesia Headache Difficulty walking Spasm; back and neck muscles	Muscle spasm, neck, abdomen, back Sensory changes	100° (R)
3. Encephalitis	Fatigue Irritable Headache Feverish Pruritus Dyspnoea Backache	Coma Absent reflexes Broncho-pnuemonia	106.6°
4. Tranverse myelitis	Headache Sore, swollen arm	Muscle weakness in lower extremities with flaccid paralysis Sensory alteration (loss from upper abdomen down) Urinary retention	102.4°
5. Meningo-encephalitis	Fever Headache Sore arm	Lethargy Spasm neck muscles Signs of meningeal irritation Hyperactive reflexes	102° except with shock R 105.4° maximum

per cent), and suggested that those who have marked sensitivity or who develop it during treatment be given the benefit of desensitization. Darfman[2] advises skin testing prior to inoculation be done with horse serum.

7. *Summary*

A study of five cases of neurological complications to treatment with rabies vaccine seen at the Contagious Disease Unit of the Los Angeles County Hospital has been presented, with an analysis of the important clinical findings and their correlation to those cases previously reported.

The incidence of complications in this area is high, but not such that we are warranted in the withholding of the Pasteur treatment when indicated. However, the vaccine treatment should be given with due regard for the more severe reactions. Treatment is best suspended with the occurrence of significant neurological signs or symptoms.

124 East Hadley Street, Whittier, California.

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California Cancer Commission Studies*

Chapter I

The Cancer Problem

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IN approaching the problem of cancer we are faced with the fact that although our knowledge concerning the disease is continually increasing, there occurs each year a progressively larger number of cancer deaths than ever before. Since 1900 the cancer death rate in the United States has doubled (68.3 per thousand in 1900 to 120.6 in 1935). Official figures from the Bureau of Vital Statistics bring into bold relief this steadily mounting increase in cancer deaths—year after year. As an example, for the past ten years cancer's toll has increased more than 25 per cent.

Year	Cancer Deaths	Year	Cancer Deaths
1936	142,612	1941	159,926
1937	144,774	1942	163,400
1938	149,214	1943	166,848
1939	153,846	1944	171,171
1940	158,335	1945	177,464
		1946	181,000*

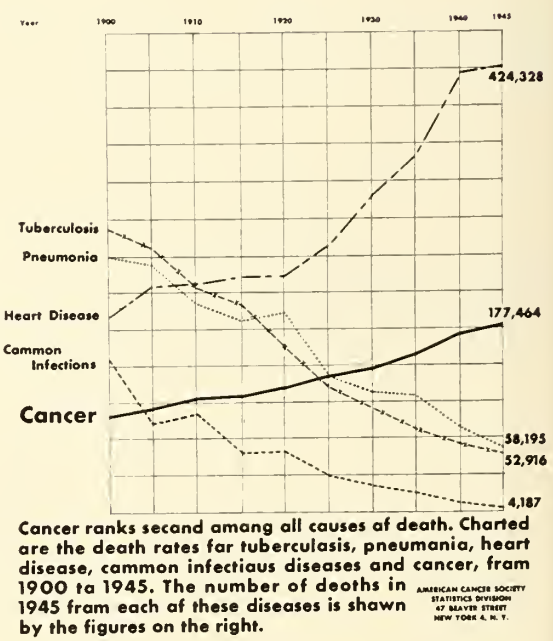
* Estimated by American Cancer Society. All other totals are official figures from the Bureau of Vital Statistics.

In 1946 one out of every eight deaths was due to cancer, indicating that unless our present knowledge is used to full advantage and unless new knowledge is obtained through research 17,000,000 people now living in the United States will die of cancer.

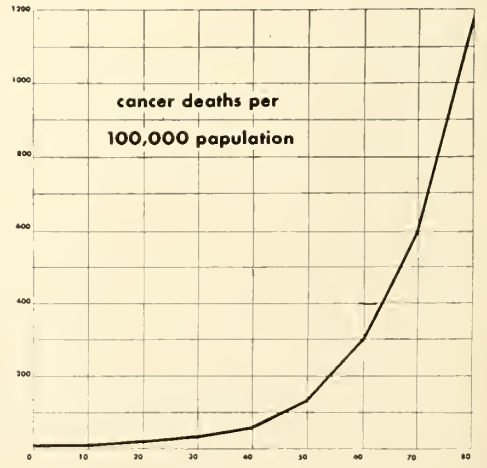
Cancer now ranks second as the most important cause of death. As a killer, it is exceeded only by diseases of the heart.

Is cancer increasing? In spite of the statistics given, the answer to this question is most probably "no." There are two reasons for this answer in the negative. First, the diagnosis and recording of cancer as well as other diseases are becoming ever more accurate, so that cases formerly considered as other diseases are now accurately diagnosed. Secondly, the progressive aging of our population accounts for a major proportion of the numerical increase in the actual number of cancer cases. We have more older people, of cancer age, in our population than ever before in our history. Whereas cancer kills at all age levels, the rate rises sharply after the age of 40. It is estimated that 90 per cent of cancer cases occur after the age of 35.

The degree to which our population has aged in the past 45 years is shown in the Graph 3.



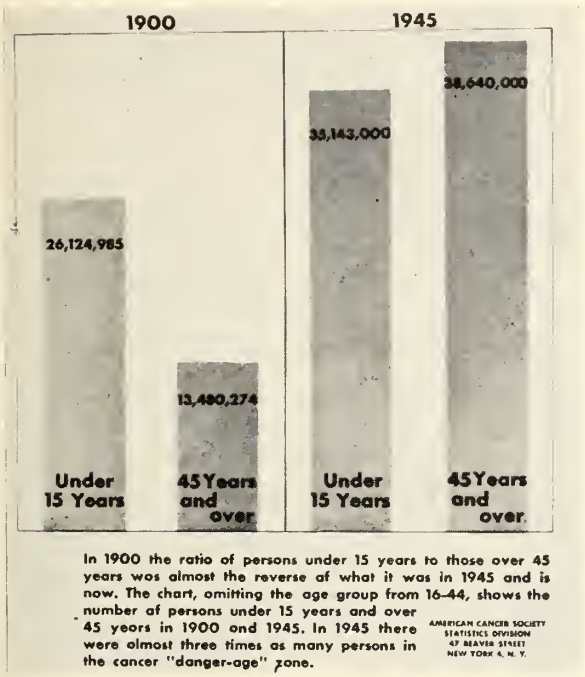
Graph 1.—Cancer, second among the principle causes of death.



Graph 2.—Age, a factor in cancer. Although cancer occurs at all ages the rate rises sharply after forty. Approximately 95 per cent of cancer occurs after 35.

* Organized by the Editorial Committee of the California Cancer Commission.

Approximately 70 per cent of the increase in the published death rate for cancer since 1900 is explained by aging of the population.

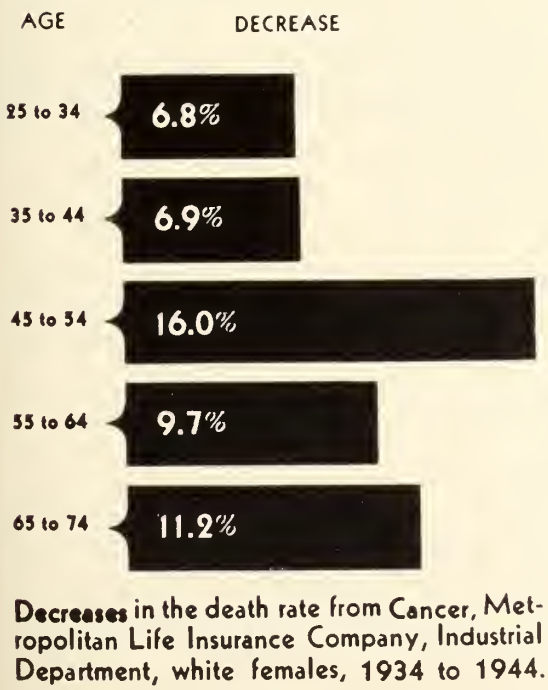


Graph 3.—An aging population. The number of people over 45 has increased markedly and is greater than ever before in our history.

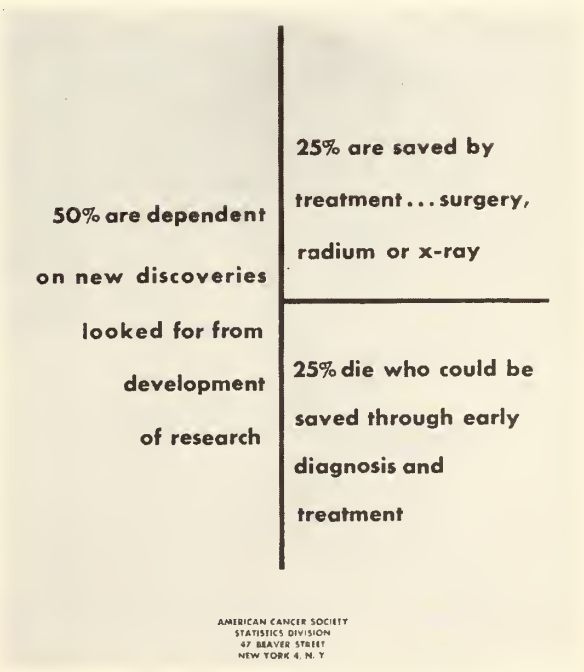
A few encouraging signs in the cancer control program are indicated by statistical studies of selected groups of our population. Such studies pertain to groups or individuals who have been subjected to lay cancer education and who have had access to prompt and adequate treatment. Encouraging trends are noted which indicate, possibly, that with intelligent action on the part of all the peak of the mortality can be passed. For example, in white female policyholders of the Metropolitan Life Insurance Company, for the decade 1934-44, a definite decrease in mortality from cancer ensued for each decade of life. Decreases varied from 6.8 to 16.0 per cent.

The problem of turning the tide in cancer mortality has a number of aspects and presents a definite challenge to the medical profession. At present one out of every four patients with cancer is being cured by present methods (surgery, x-ray, radium), one out of four is dying needlessly due to delayed and inadequate therapy, and two out of four are doomed to die of cancer unless new knowledge and methods are obtained through research.

These considerations bring into sharp focus the *three main fronts on which the attack on cancer must continue—research*, *education*, and *service*. Of these, the most important is *research* because it is only through a research program that new knowledge and facts can come, facts which will save the 50 per cent of cancer sufferers who are now doomed irrespective of how soon medical aid is sought and the type of therapy instituted. The importance and urgency of the problem deserves preferably coordination on a nationwide scale, with the use of all available trained personnel and facilities. Of



Graph 4.—A decrease in cancer mortality for all decades of life varied from 6.8 to 16 per cent in white female policyholders of the Metropolitan Life Insurance Company from 1934 to 1944.



Graph 5.—One-fourth of the people stricken with cancer are being saved by treatment, one-fourth are dying because diagnosis and adequate treatment are delayed, and one-half are doomed unless new discoveries are forthcoming through research.

practical importance is *education*, not only of the laity but also of the profession, concerning knowledge now available. Education will enable the utilization of tools already in our hands by which we can save one out of every three patients who now needlessly die of cancer. The *service program* with its many ramifications will not only indirectly assist the educational project but will be of great assistance to early and presumably curable needy cancer cases, as well as to incurable patients and their families. This paper will be devoted chiefly to the educational and research considerations of the cancer problem.

EDUCATION OF THE MEDICAL PROFESSION

Education of the medical profession regarding cancer must keep pace with and be closely coordinated with lay education. During the period when many of our doctors were trained, cancer was considered, by and large, as a hopeless problem. Even now, more adequate cancer instruction in many of our medical schools is an imperative need. To mitigate this attitude of hopelessness, care should be taken to show cured and arrested cases of cancer to medical students and members of resident staffs. Cancer postgraduate ("refresher") courses, special one- or two-day clinics for doctors in outlying communities, and lectures for general practitioners are most urgently needed.

It is imperative that the family physician be kept up to date with newer developments in cancer research and that the confidence of the family physician be sought and obtained in any proposed program of cancer control. The family physician is the most important link in our chain of cancer control. Success or failure rests with him. Obviously it is impossible for any but a small fraction of people in the cancer age group to go initially to cancer specialists or to cancer detection centers. There are not enough doctors available to staff the number of detection centers necessary to give all people of cancer age two complete *physical* examinations a year. Even under optimum conditions cancer detection centers can do only a "partial job." *The great majority of patients with cancer or danger signals of cancer first consult their own physicians and are guided chiefly by the advice given by those physicians.*

The first principle in the treatment of cancer is the recognition of the tremendous difference in the curability of early as compared to late disease. Cures or permanent arrest can be expected only in early cancer. The following table shows the cure possibilities in early, moderately advanced and late stages of cancer:

	Early	Moderately Advanced	Late
Skin	95%	25%	?
Lip	95%	25%	?
Breast	75%	25%	?
Uterus—Body	75%	25%	?
Cervix	75%	15%	?

PHYSICIAN MUST BE PREPARED

Educational drives, such as that of the American Cancer Society, are awakening public consciousness, and much accurate information concerning the disease is being disseminated. This will be to no purpose unless the physician is prepared to act decisively when consulted.

His efforts should be directed toward:

1. The recognition of the *predisposing factors of malignancy.*

2. The prompt recognition of *early cancer*, and the institution of *prompt and adequate treatment.*

3. Recognition, above all, of the *limitations of his own ability and resources* in providing the patient with the services and protection to which he is entitled.

4. Willingness to promulgate the "*group approach*" in the study and evaluation of cancer cases prior to evolving prematurely a plan of treatment.

5. Assuming the responsibility of doing complete periodic physical examinations.

It is apparent that these responsibilities fall squarely on the shoulders of the physician first consulted. This is usually the family physician. The fate of the patient with cancer lies in his hands. Each case of cancer must receive individual consideration. Special regard must be given to the natural history (habits) of the particular type of tumor in question. Those specialists likely to be called ultimately to participate in the treatment should be given the opportunity to study each case before a plan of treatment is decided upon, rather than after difficulties have been encountered in attempting to pursue a hastily chosen course. In treating cancer one must have not only the mental but the physical preparation to do the right thing. Of what avail is it to biopsy a bone tumor if facilities are lacking not only for immediate frozen section diagnosis, but for amputation of the part, if necessary?

COMPLETE PERIODIC EXAMINATIONS

Coming more clearly into focus in programs of cancer control is the necessity for complete periodic physical examinations of all well people of cancer age, that is for those over 40 (and preferably 35) years of age. Properly, this job should be done by the family doctor. No physician should refuse to make such an examination at a mutually convenient time. If undertaken, it should not be cursory but should be conducted in a complete, thorough manner, well calculated to accomplish its purpose. In examining patients, regardless of age, the possibility of cancer should always be kept in mind. Inasmuch as such periodic physical examinations are for the purpose of detecting cancer in its early stages, the examination should meet the same minimum standards as those which have been established for "cancer detection centers." Such examinations should include at least the following procedures:

A. History.

B. Routine blood count, urinalysis and serology.

C. X-ray film of the chest (mass survey).

D. *Nose and throat examination*, including lips and intraoral.

E. Examination of the *breasts*.

F. Physical examination of the *chest, abdomen,* and *extremities* (including *skin*).

G. Examination of *lymph nodes:* neck, axillae and groin.

H. *Pelvic examination.*

I. *Rectal examination.*

In order to encourage complete periodic physical examinations in doctors' offices, the Cancer Commission of the California Medical Association is willing to provide, without cost, appropriate examination forms to practicing doctors in California and to provide these forms in sizes to suit the individual doctor's filing systems. (See Figure 1.)

Many early and curable cancers as well as other conditions have been found by careful and complete periodic physical examinations. When abnormalities are found on examination they must be studied until the question of malignancy is settled. The motto should be "look and see," never "wait and see!" Hemorrhoids may well be associated with early cancer. To the chagrin of the medical profession an average interval of nine and one-half months elapses between the time a patient with rectal cancer develops symptoms and the time he obtains definitive treatment. The last four and a half months of this interval is spent with doctors who "wait and see!"

The most worthwhile service the general practitioner can render his patients who have cancer is prompt initiation of the processes through which they will obtain the best diagnostic and therapeutic services possible. The many advantages of the "*group approach*" to cancer are lost if judgment as to treatment plan is passed before all pertinent data are at hand for discussion and mature decision. The "group approach" implies the services, when possible, of a radiologist, pathologist, surgeon, internist, and specialist in the given field in which the tumor occurs, i.e., gynecology; orthopedics; eye, ear, nose and throat; urology, etc. Such a "group approach" forms the basis of organization of consultative tumor boards whose establishment is being encouraged in all California hospitals approved by the American College of Surgeons and the Cancer Commission of the California Medical Association. *Hastily selected treatment only too often spells the doom of the cancer patient.*

CANCER RESEARCH

It has been generously estimated that under ideal conditions of early diagnosis and adequate treatment by methods now available, the annual mortality from cancer in the United States could be halved. This would still leave an annual residual of some 100,000 deaths from neoplastic disease. The only means of eradicating this tragic problem is through the experimental approach—research.

Cancer research, or oncology, as an experimental endeavor began only some 50 years ago. The studies of biologists, geneticists, biochemists and scientists in other fields have yielded extensive information, although much of it as yet has had little clinical application. The public and the medical and allied professions have become increasingly aware of the importance of developing this aspect of our attack on cancer. The American Cancer Society and its predecessor, the American Society for the Control of Cancer, with its Woman's Field Army, were leaders in awakening public interest to the necessity of adequate support of scientists working on this engrossing biologic problem of abnormal growth.

The Federal Government, by its Cancer Act of 1937, mobilized the efforts on a nation-wide scale which is being supported by ever-increasing funds. Many large private donations, such as the Donner International Cancer Foundation, the Anna Fuller Fund, the Finney-Howell Foundation, the Jane Coffin Childs Memorial Fund and the recent Sloan-Kettering Foundation, are devoted entirely to the study of cancer. As a result, there are at least six outstanding research institutions in the United States conducting investigations exclusively or chiefly on cancer; perhaps the largest are the National Cancer Institute, Bethesda, Maryland; the Memorial Hospital for the Treatment of Cancer and Allied Diseases, New York; the Barnard Free Skin and Cancer Hospital, St. Louis, and the Roscoe B. Jackson Memorial Laboratory, Bar Harbor, Maine.

Noteworthy programs in cancer research are being conducted in several universities, particularly Yale, Minnesota and Wisconsin. Two magazines, *Cancer Research*, and the *Journal of the National Cancer Institute*, are devoted exclusively to the presentation of results of research work on cancer. The number of separate publications on the subject is well over twenty thousand, and several recent attempts to evaluate and to digest the available information have been made. To readers interested in the field are recommended the following: "Mammary Tumors in Mice," and "A.A.A.S. Research Conference on Cancer," published in 1945 by the American Association for the Advancement of Science, Washington, D. C., the sprightly "Riddle of Cancer" by C. Oberling, published in 1945 by the Yale Press, New Haven, Conn., and the "Biochemistry of Cancer," by J. P. Greenstein, issued in 1947 by the Academic Press, New York.

RESEARCH IN OTHER COUNTRIES

The research efforts against cancer are, of course, not limited to the United States. The Imperial Cancer Research Fund and the Royal Cancer (Free) Hospital of Great Britain have been among the pioneers and remain among the leaders in the field. Laboratories for cancer research in France, the Scandinavain countries and Germany have made some of the outstanding contributions to the subject. The Oncology Institute in Leningrad, as well

PERIODIC PHYSICAL EXAMINATION SHEET

[Cancer Detection]

Name..... Date..... Case No.....

Address..... Telephone No.....

Name and Address of Relative or Friend.....

Sex..... Age..... Nationality.....

Personal History.....

.....

Physical Findings..... T..... P..... R..... Wt..... Recent loss?.....

Head and Neck.....

Eyes..... Ears..... Nose.....

Mouth (incl. Lips, Teeth, Tongue).....

Chest (incl. report of survey film).....

Heart (incl. B.P.).....

Breasts.....

Abdomen.....

Rectal Exam.....

Pelvic Exam.....

External Genitalia.....

Extremities.....

Skin.....

Lymph Nodes (neck, axillae, groin, etc.).....

Blood Count..... Urinalysis..... Was R.....

Impression.....

Disposition.....

Date of Next Examination.....

Letter sent to referring or family physician.....

Date....., M.D., Examiner

NOTE: Enter significant findings, including laboratory data, on additional sheet as necessary.

Form 1-46

Figure 1.—"Periodic physical examination sheet (cancer detection)" recommended by the Cancer Commission of the California Medical Association for use in the private physician's office.

as other laboratories in Moscow and in Kiev have also made important scientific additions to our knowledge.

Oncology is not a science in itself but the application of many scientific disciplines to the problem of neoplastic diseases. The development of microscopic techniques during the nineteenth century permitted a detailed study of tumors and established the morphologic criteria upon which the taxonomy, differential diagnosis and prognosis of cancer are still based. At the turn of the century, careful studies by the Imperial Cancer Research Fund and others, established that neoplastic diseases were prevalent in a number of species of animals, particularly mice, and that these tumors in all ways were comparable to similar neoplasms in man. It is now known that every species that has been sufficiently studied develops malignant neoplasms. This includes lower forms such as amphibia and fish as well as mammals. Even plants develop cellular overgrowths that resemble cancer.

It was found that certain tumors could be transplanted and grown in new hosts of the same species. The proper material for experimentation, in unlimited amounts, thus became available, and a fertile decade of study of transplanted tumors had its inception. Although much was learned regarding the characteristics of tumor tissue, this material gave no insight into the mechanism of tumor development. It was, in effect, a form of *in vivo* tissue culture. Refinements to tissue culture were also undertaken when proper methods had been developed by Harrison and by Carrel. They are still being actively pursued.

Perhaps the most striking new development in this field are the observations of Earle and of Gey that malignant transformation of normal fibroblasts into sarcoma can occur in cells grown in tissue culture for protracted periods. Thus, at least this type of neoplasm can arise from cells entirely divorced from the systemic reactions of the original host. Interesting data have become available from investigations on the growth of neoplasms in developing chick eggs, and in the anterior chamber of the eye of species other than those in which the tumors arose. Apparently the immunologic reactions that do not permit heterotransplantation under usual conditions are not operative in these media.

During the transplantation decade numerous attempts were made to demonstrate infectious agents of the bacterial type in the etiology of the tumors. All these attempts have been disproven; the transfer of viable cells was apparently required for successful transplantation. Rous, in 1911, showed that certain sarcomas in chickens could be transmitted by material that had been passed through filters that retained cells and bacteria. At this time the concept of filterable viruses as a pathogenic entity was not sufficiently developed, and the work was not generally accepted. Recently the role of viruses in the etiology of certain types of neoplasms in mammals as well as in birds has again come to the fore.

In the second decade of the century, the main emphasis began to be placed upon the study of genetic factors in the development of tumors. Cancer, like every other feature of the living organism, is the product of environment (extrinsic factors) acting upon the inborn constitution of the organism or its tissues (intrinsic factors). It was soon shown that cancer was not inherited as a simple character, although susceptibility to cancer in varying degrees is determined by the genetic pattern. Moreover, this genetic pattern is not the same for all neoplasms. In order to reach this important conclusion, geneticists had to develop strains of mice that were generally "pure" or homozygous. These strains of mice are an invaluable material for cancer work since they display fairly constant incidences of specific types of tumors, and have rightfully been stated to be as essential to biologists as are pure chemicals to chemists.

In 1918, Japanese workers first showed that long-continued applications of tar to the ears of rabbits induced carcinoma. A simple, controllable method of inducing cancer in animals, as well as propagating it, now became available. It was not until 1930 that British scientists isolated from tar the specific chemical, 3,4-benzpyrene, that had the power of inducing malignant neoplasms in animals and, presumably, in man. With the isolation of pure carcinogenic compounds and the synthesis of one of the most powerful of them, 20-methylcholanthrene, from bile acids, it became popular to postulate that cancer may be the result of synthesis by the body of carcinogens related to the polycyclic hydrocarbons, with perhaps cholesterol as the precursor. At the same time, chemists clarified the molecular structure of steroid hormones, and estrogenic compounds were shown to have the power of inducing a number of neoplasms in animals, including those of the breast, uterus, testis and the pituitary gland.

Extension of the work, however, showed that a large number of chemicals of unrelated structure, including certain azo dyes, acetylfluorene, carbon tetrachloride, repeated subcutaneous injections of certain simple acids and sugars, and even bakelite discs also evoked tumors in animals. The list of substances able to evoke tumors in animals under certain specific conditions now extends to over 250 compounds and no characteristic molecular structure as a common explanation can be maintained. It was also shown that two forms of physical energy, roentgen rays and ultraviolet rays, also had the property of eliciting the neoplastic reaction. Roentgen rays, of course, are well known to produce carcinoma in man as well as in animals, and the higher incidence of cutaneous carcinoma in our southern states may well be correlated to the increased exposure to ultraviolet radiations.

STUDY OF SPECIFIC NEOPLASMS

In contrast to the overall scientific attack on cancer as an entity, certain lines of investigation have emphasized the detailed study of specific neoplasms. Relatively few experimental tumors, among them the mammary, pulmonary and hepatic tumors and leukemia in mice, have been sufficiently studied by this approach. Data are sufficient, however, to conclude that, at least during the stage of initiation, cancer should be considered as a great group of

diseases of varying etiologies and involving different determining factors.

Mammary tumors in mice, a biologic entity showing a variety of morphological patterns, usually arise multicentrically from the terminal buds of the gland, grow progressively, metastasize and kill the host, and in other ways exhibit characteristics of typical malignant neoplasms. Strains of mice developing practically 100 per cent mammary tumors among the females, and strains that have practically no mammary tumors have been developed through many generations of careful inbreeding and selection. Breeding females develop more tumors at an earlier age than non-breeding animals, and oophorectomy sharply reduces the incidence. Mammary tumors can be induced in male mice of strains in which the females develop brest tumors by transplantation of ovaries, or by injection of estrogenic compounds. The classical study of the inheritance of these tumors, by the Jackson Memorial Laboratory group, showed that the transmission was extra-chromosomal in nature. The progeny of high-mammary-tumor females crossed to low-tumor males developed mammary tumors regularly; but when the cross was reversed—that is, the female came from the low-tumor strain and the male from the high-tumor strain—practically no mammary tumors developed in the hybrid progeny despite their identical genetic make-up.

Bittner continued these studies by simply transferring upon birth the high-mammary-tumor mice to low-tumor females, and the young did not develop mammary tumors. Conversely, mice of low-tumor strains that were foster nursed by high-tumor females developed many breast tumors. Active investigations have now established that there is an agent in the milk, as well as in many tissues of the high-tumor lines, which is self-reproducing, filterable, and by ultraviolet spectrography and ultracentrifugation tests falls in the general category of viruses.

Mammary tumors in mice appear to be the result of an intricate interplay between at least three sets of factors: the genetic, the hormonal, and the milk agent; in addition, the appearance of these neoplasms is sharply influenced by environmental factors such as diet, and by injection of carcinogenic compounds such as methylcholanthrene. The neoplasm can be added to a number of other tumors in which a filterable virus entity is implicated etiologically; the Rous sarcoma of chickens, and the Shope papilloma and carcinoma of rabbits. Whether these viruses are more than the initiators of the neoplastic transformation, that is, whether cancer is a form of virus-cell symbiosis, however, remains a matter of conjecture.

The specificity of the etiologic factors involved in the genesis of different neoplasm is well illustrated in the mouse, in which the milk agent appears to be involved only in the genesis of mammary tumors. Hepatomas and pulmonary tumors do not require the presence of the agent. Hormones do not influence the genesis of pulmonary tumors, and they play a minor role in hepatic tumors. Certain azo dyes, such as o-aminoazotoluene, induce hepatomas, increase slightly the incidence of pulmonary tumors and have no effect on mammary carcinogenesis; ethyl carbamate (urethane) markedly increases the incidence of pulmonary tumors but so far has not been described to be involved in the genesis of other tumors in the mouse. Certain restrictions in the diet retard the development of mammary tumors but accelerate the appearance of hepatic tumors in mice receiving the azo dyes, and have no effect on the genesis of pulmonary tumors.

RESEARCH BY BIOCHEMISTS

About 20 years ago biochemists actively joined the ranks of cancer research workers. They have made noteworthy investigations in the problem, particularly in the study of the biochemical characteristics of neoplastic tissue. By far the greatest single contribution has been that of Warburg, who showed that malignant tumors may be characterized by their metabolism, by the consideration of the absolute and relative magnitudes of anaerobic glycolysis, of the respiratory quotient and of aerobic glycolysis. The metabolism of tumors and other living tissues is governed by diverse and intricate systems of enzymes. A methodical investigation of many of the known enzyme systems has been made of many tumors and the results have been compared with values obtained with normal tissues of origin. No enzyme or chemical specific for neoplasm has been uncovered. In general, tumors show less variety in their content of enzymes or of vitamins than do normal tissues, thus tending to converge toward a common class which in some respects resembles embryonic tissue. It may be stated that the enzyme and vitamin content of neoplastic tissues is usually at the lower end of normal values, indicating that neoplasms have a low reserve—perhaps because most of their energy is expended toward reproduction and growth rather than toward activities useful to the organism.

The biochemical studies have also indicated that profound alterations occur in the organism bearing a neoplasm, at sites far distant from the tumor. Catalase activity in the liver and kidneys is reduced; perhaps this effect is associated with decreased hematin synthesis. Hemoglobin is also reduced in the presence of a neoplasm. There are alterations in the adrenal cortex, which may be associated with cachexia of cancer, and the group at Memorial Hospital is pursuing the problem of altered steroid compounds related to the adrenocortical hormones that appear in the urine of patients with cancer. Hepatic function is impaired in patients with gastric or intestinal neoplasms, and these functions are partially restored upon the removal of the tumors. The biochemical effects of certain specific types of neoplasm already have gained recognition as laboratory tests of great clinical value. Among these may be mentioned the alterations in alkaline phosphatase in neoplasms of bone and liver, in acid phosphatase in the presence of prostatic carcinoma, the Bence-Jones proteins in myeloma, melanin in the urine of patients with melanoma, and various endocrine effects of tumors of the pancreas, adrenal, thyroid, pituitary, ovary and testis.

The modern trends in cancer research can be outlined under three general headings. The first approach that is going to receive emphasis is that of *cellular physiology*—the attack on the structure, function and reactions not only of the cell, the unit of living matter, but of its components as well. Methods of histochemistry, refined techniques of determining electrical potential and other physical characteristics, and the use of tracer elements to assist in the unraveling of the complex structure of nucleoproteins will be mobilized and exploited. The second approach is the closely related *study of the intermediate mechanisms involved in the transformation of normal into neoplastic tissue.* So far, studies have been limited to the two ends of the reaction: the normal has been compared with the frankly neoplastic, with the great intermediary stages remaining *terra incognita.* Emphasis will be placed upon the study of the development of neoplastic transformation through all its stages. Steps in this direction are already developing in the work of Cowdry and his group in St. Louis.

In contrast with the fundamental approaches indicated above, the third line of attack that is being actively pursued are the semi-empirical all-out programs of *experimental chemotherapy* of neoplasms at the National Cancer Institute, at the Memorial Hospital, and in Englannd. This involves the systematic synthesis and assay of compounds exhibiting effects on experimental tumors, elaboration and alteration of the chemical structure in hopes of attaining more selective and more pronounced action. Even at this early stage of developments, nitrogen mustards, the polysaccharide derived from Bacillus prodigiosus, and stilbamidine have been shown to have some action on certain neoplasms in man.

Every year scientific advances have enhanced our knowledge and made it possible to save more people from cancer. Large gaps remain, and many findings seem to be contradictory. Cancer research must proceed firmly along two lines: the study of carcinogenesis, which will give us an insight into the prophylaxis and prevention of cancer, and the study of characteristics of tumor growth, which will give us the clue to its control. At this stage of research, all-inclusive theories of cancer, not matter how glittering they may seem in an armchair, are more of a hindrance than a help in the careful, analytical approaches that must be pursued and individualized for each type of neoplastic growth until we have sufficient information to synthesize our data into a coherent whole. We are at present not as far along with our research in the ultimate solution and reversability of cancer as were the physicists in 1941 with atomic energy.

The atom bomb project was a gigantic application of knowledge that had been previously discovered. In cancer research we do not have as yet a comparable amount of fundamental information. We must soberly recognize this fact and guard against the disappointments of expecting too much too soon. Generous, continual financial support, an accentuated group effort in which many scientific fields are strongly represented and in which the competent cancer investigators have an adequately compensated and assured status are prerequisites for continued and accelerated progress. The most important elements, however, are conscientious scientific effort and patience, slow and exasperating though the work occasionally may seem. With confidence in the experimental method and the philosophy of science, and with tools of ever-increasing power and subtlety, it is certain that the efforts will ultimately yield the key to and the mastery over neoplastic growth.

Chapter II—"General Principles in the Treatment of Cancer," by Emile Holman, M.D., and Chapter III "The Examination of the Cancer Patient." by Otto Pflueger, M.D., will appear in this section next month.

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EDITORIALS

Vagotomy for Peptic Ulcer

Clinical evaluation of vagotomy for peptic ulcer is still in the formulative stage, but in view of some recent decisive developments and the widespread use and wider interest in this new surgical procedure, a review of the situation seems warranted.

In a previous editorial,[2] it was pointed out that every new method postulated for the treatment of peptic ulcer, particularly if it involved a new operation, immediately aroused the skeptics. The skeptics have now had a chance to raise their voices and, with the added experience of an additional year, have helped to define more clearly the real place of section of the vagus nerves in the surgical treatment of ulcer.

The difficulty in making a fair appraisal of the place of vagotomy in the treatment of ulcer is well illustrated by Priestley[4] who has pointed out that accurate evaluation of the effectiveness of vagotomy in the treatment of ulcer requires, first, that a uniform type of case be considered, second, that the vagotomy be complete and, third, that no associated surgical procedure be performed. Since more and more vagotomies are being performed as a secondary procedure along with such direct attacks on the stomach as resection and gastroenterostomy, the evaluation of the clinical results of vagotomy alone becomes increasingly difficult. Furthermore, insufficient time has elapsed to evaluate critically the results of the operation.

During the past year little of major importance has been added to our knowledge of the physiologic effects of vagotomy on the stomach. Striking decrease in gastric motility, the elimination of the cephalic phase of gastric secretion, the reduction in nocturnal secretion of gastric juice and the disappearance of pain of ulcer are the striking physiologic changes. Perhaps the most important recent observation has been that of Moore and his associates[3] who have noted return to normal gastric motility and gastric secretion, especially nocturnal secretion, one year after vagotomy. Vanzant[5] made similar observations on experimental animals. If some of the important physiologic effects of vagotomy do not "hold," so to speak, the results of the operation may be as transient as are some of the effects on motility of the stomach. In fact one of the most important problems concerning vagotomy now is whether or not the effects of the operation, and therefore the clinical results, will be permanent.

Despite these various problems, enough experience has been gained to evaluate certain aspects of the problem of vagotomy for ulcer.

Is vagotomy the procedure of choice in the management of gastric ulcer? The answer is clearly to be "no." Inability to establish clearly the benign or malignant nature of an ulcerative gastric lesion, except by direct observation of the lesion and pathologic study of it, makes vagotomy alone an unsatisfactory procedure for the treatment of this disease. Vagotomy has been done in an attempt to heal an ulcerative gastric lesion which at the time of operation was not recognized to be a carcinoma. Valuable time may be lost before the true nature of the lesion is discovered. Furthermore, several instances have been repeated in which, following vagotomy and excision of the gastric ulcer, the lesion has returned within a few months.

In what types of cases of duodenal ulcer is vagotomy alone the treatment of choice? Four years ago when the procedure was reintroduced by Dragstedt,[1] and for some time thereafter, it appeared that vagotomy might be the answer to the surgical problem of simple intractible duodenal ulcer if obstruction or acute perforation were absent. Added experience, however, has indicated that vagotomy is not ideal because of the frequency with which

gastric retention ensues though evidence of preoperative pyloric obstruction has been lacking. It is becoming increasingly apparent that vagotomy alone is not the treatment of choice in the surgical management of duodenal ulcer. In an occasional uncomplicated case in a young individual in whom the neurogenic features are striking and in whom gastric resection seems undesirable for various reasons, vagotomy alone may be indicated. However, for most experienced surgeons this group is gradually narrowing and may well eventually disappear.

What about vagotomy in the management of gastro jejunal ulcer? It is in this group of cases that the operation seems to be of the greatest value. The difficulty and lack of success of medical therapy, the considerable risk and occasional impossibility of further gastric resection and the likelihood of recurrence of the lesion make the usual forms of therapy for this condition rather unsatisfactory. Vagotomy can be carried out in such cases with little risk and, since the problem of postoperative gastric retention usually is non-existant because of the previously made anastomosis, this procedure seems indicated.

Should vagotomy be done by surgical approach from above or below the diaphragm? The advantage of the infradiaphragmatic approach is that the lesion in the stomach or duodenum can be observed and be dealt with if necessary at one operation. The disadvantage is that there may be difficulty in completely resecting all of the fibres of the vagus nerves. On the other hand, the supradiaphragmatic approach is simple and permits section of the vagus nerves above the level where they branch into a network and more certainly leads to complete vagotomy. However, the disadvantage of the approach is that it does not permit inspection of the lesion and a second operation may be necessary if uncontrollable gastric retention develops. Moreover in some cases severe postoperative intercostal pain persists for weeks to months. More and more surgeons are using the abdominal approach and it seems that the advantages of this method are the greater.

Finally, should vagotomy be done as a secondary procedure following gastric resection (or gastroenterostomy or pyloroplasty) for ulcer? The answer to this question is not known. It will be a long time before sufficient information has been collected properly to evaluate the results of partial gastrectomy and vagotomy as compared to those of partial gastrectomy alone in the treatment of duodenal ulcer. To a greater extent the answer depends on the ultimate effects of vagotomy on the human stomach, and these are completely unknown. We shall have to wait at least ten years if not longer and have studies of large numbers of carefully controlled and collected cases before establishing or rejecting this combined surgical procedure.

In some way, then, many problems remain to be settled in the use of this most interesting procedure. As it stands now, it appears that simple vagotomy should not be done for gastric ulcer, that it is rarely indicated as a single surgical procedure for duodenal ulcer, that the field of greatest usefulness for it is in the treatment of marginal and jejunal ulcer, and that the usefulness of it as an adjunct to operations resulting in a new gastric stoma remains to be established.

Here then is a simple procedure the results of which cannot be clearly defined or delineated because we have so little knowledge of the ultimate results of section of nerves as large and complex as the vagi.

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Democracy Prevails Again

If there had been any question prior to the 1947 Annual Session about the prevalence of democracy in the California Medical Association, that question was thoroughly resolved by the events of the session. If there were any doubts on this score, they may be eliminated.

As proof of the democratic process at work, twenty-nine resolutions and five proposed constitutional amendments were placed before the House of Delegates. Some of this material represented group presentations from county delegations and some came in the form of emanations from individual members of the House. All were freely offered and fully considered. Each was given its own hearing before a reference committee and the report of the committee on each item was subject to free debate on the floor.

True, some of the resolutions sought to change the policies or operating procedures of the Association. Some offered criticism, constructive or otherwise, and some proposed that new fields of endeavor be explored. Taken all in all, the resolutions constituted a cross-section of the thinking of the medical profession of the state, offered without fear or favor.

From the deliberations of the House of Delegates, two major factors emerged. First, the policies of the Association and its Council were affirmed by

the Delegates; the course taken by the guiding officers was approved. Inasmuch as the Council has the authority and the obligation to manage the affairs of the Association between the meetings of the House of Delegates, this constituted a vote of confidence in the actions and policies of the Council. Secondly, the House voted for the exploration of an internally-operated public relations program, aimed principally at improving the relationships between individual physicians and their individual patients.

The ramifications of this second item are manifold and varied. The possibilities appear unlimited. Fundamentally, the objective of such a program would be to cement the profession more closely to the public, to assure a feeling on the part of the public that the profession is doing its job humanely as well as scientifically. With the public holding such a feeling, it seems obvious that public clamor for radical changes in the control of the practice of medicine would diminish if not cease completely. If that eventuates, the crises which have plagued the profession in the form of punitive or control legislative proposals might well vanish.

These are but two examples of the results of the House of Delagates deliberations. In addition, numerous technical matters were decided, again after full consideration, open debate and free speech. Thus is the medical profession of California served and the principles of democracy maintained.

Diagnostic Medical Care and Lay Laboratories

The great importance of accurate diagnosis in modern medical care is now well known. An accurate history and a correct and complete physical examination properly interpreted are the cornerstones of medical diagnosis. Supplemental clinical laboratory and radiological examinations are necessary diagnoses in many cases. Following these additional diagnostic studies, still further tests (such as bronchoscopy, cystoscopy, gastroscopy) are required in a very small number of cases.

Diagnostic medical examinations which involve clinical laboratory work, pathology and radiology may be done in the individual doctor's office, in office medical buildings and in hospitals. The fundamental part of the examination is the availability of trained personnel in order that it may be conducted properly and interpreted adequately. In the larger centers, radiologists and pathologists (qualified M.D.'s) normally perform such functions. In the smaller communities, circumstances often require that they be performed by general practitioners who have had some supplemental training in radiology or pathology.

The profound importance of competent pathological examination is evidenced in the early diagnosis of malignant disease. Take the common example of a woman with a lump in her breast or the young male with a painful bone lesion. In either case, the process may be neoplastic. If it is, the swiftest method of cure is removal of the breast or leg. Upon whose decision and diagnosis must this grave step often be taken? Upon the pathologist's. If there is a well trained pathologist accessible to the hospital or medical building, the patient is apt to receive a correct diagnosis and a life saving measure then justifiably undertaken. On the other hand, if reliance is placed upon a poorly trained person or one not well grounded in medicine, needless and mutilating operations may be performed for benign tumors or an unnecessary delay may occur in the treatment of malignant lesions. If a diagnostic procedure such as a blood count or a chest x-ray is performed by competent personnel responsible to and under the supervision of a specialist in one of those fields, the end result is apt to be earlier diagnosis and better medicine. A poorly done test is often worse than none at all.

In the early days of clinical laboratory and radiological medicine, it was not unusual for technicians (notably after World War I) to set themselves up as practitioners in these fields. Many of them were moderately experienced, and most were well intentioned. Owing to the shortage of trained medical specialists, these laymen were accepted and supported by the profession at large. In the meantime, departments of radiology and clinical pathology were becoming established in medical schools, and young physicians were being encouraged by the faculties to enter these fields. Today, if we are to encourage the continued development of such competent specialists, we must face the fact that any further development of lay laboratories will be completely deterrent.

In some parts of the country, the lay laboratory has become synonymous with convenient diagnoses and even rebates. To the credit of the medical profession is the fact that such practices are exceptional. Nevertheless, the handwriting is on the wall, and the signs are clear. We must begin to support our medical laboratories, owned and conducted by medical men trained in their fields, and not lend aid to laymen attempting to invade the practice of medicine.

When the existing and accepted lay laboratories pass from their original hands, it is to be trusted that the practice will become as obsolete as the barber surgeon. Not so many years ago, all surgery was done by technicians or barbers; the medical profession condoned this. Then, after further study and especially after the development of antisepsis and anesthesia, matters changed and were gradually corrected. It would now seem to be appropriate to hasten similar constructive evolution of the lay laboratory (whether it be in a medical building or a hospital building).

CLINICAL CONFERENCE

Upper Abdominal Pain

FROM THE MEDICAL STAFF CONFERENCE AT THE UNIVERSITY OF CALIFORNIA HOSPITAL, SAN FRANCISCO, MARCH 5, 1947*

DR. HOWARD BIERMAN**: This morning we shall consider upper abdominal pain, as illustrated by a clinical case. Dr. Crede will give the history of the patient. We shall then discuss it point by point, emphasizing the physiological aspects of the mechanisms which underlie the various symptoms.

DR. ROBERT H. CREDE†: G.C., a 61-year-old white man, was in excellent health until a year and a half before entry. The illness started with a gradual and progressive loss of appetite. Six months before entry he began to experience generalized abdominal pain, described as a soreness, usually associated with tenderness of the lower chest, and occasionally radiating to the left groin. It was aggravated by eating. There was some low back pain attributed by the patient to arthritis and apparently unrelated to the abdominal pain. There was progressive constipation for the last five months without change in the character of the stools. He had lost 42 pounds in weight.

The family and past history were irrelevant.

On physical examination the temperature was 37°C., the pulse rate was 60, respirations numbered 20, and the blood pressure was 140/70 mm. Hg. The patient was a florid man in moderately severe pain and exhibiting evidence of recent weight loss. There was slight diffuse tenderness in the epigastrium and the right lower quadrant of the abdomen. A sausage-shaped, slightly tender mass, 5 by 10 cm., was palpated above the umbilicus. It was freely moveable but did not descend with respiration. The lower pole of the left kidney was palpable; the liver edge was two fingerbreadths below the costal margin. The patient was relatively free of pain in the prone position but not in the supine position. The prostate was enlarged 1½ times, firm and non-nodular. There was an irregular hard area in the anterior and left lateral half of the rectum; it was felt that this was scar tissue from a previous hemorrhoidectomy.

Laboratory tests gave the following results: Hgb. was 13.6 grams; erythrocytes numbered 4,980,000; leucocytes numbered 6,750 with a normal differential count. Urinalysis was negative. Spinal fluid findings were within normal limits. The stools were light colored and soft; the reaction for occult blood mildly positive, and studies for ova and parasites negative. The alkaline phosphatase value in the blood was 39 units (normal below 8); for acid phosphatase the value was 4.4 units. Gastric analysis revealed no free hydrochloric acid in the fasting specimen and the total acid value was low. Rennin and pepsin were present but the reaction for occult blood was negative. Roentgenologic studies showed no definite intrinsic disease in the stomach, duodenum or small bowel. There seemed to be some widening of the duodenal arch.

Course: During the first few days of the hospital stay the palpable mass in the abdomen seemed to shift in position. Ten days after entry the patient complained of transient abdominal cramps and pain in the left flank. Three weeks after entry a massive gastro-intestinal hemorrhage was followed by jaundice. An exploratory laparotomy was performed.

Clinical Discussion:

DR. THEODORE ALTHAUSEN‡: This patient lost 42 pounds in weight in six months. This would be a most significant finding except for the grossly insufficient caloric intake of the man due to impairment of appetite. I think that a good deal of his weight loss was due, not directly to the disease, but to lack of appetite leading to a very insufficient diet.

DR. MAYO SOLEY*: Generalized abdominal pain comes from peritoneal irritation or from over-activity of the bowel itself. When pain occurs in the paraumbilical region, I think it can be localized in certain parts of the abdominal cavity. It may come from the duodenum, from the small bowel as far down as the terminal ileum, or from the pancreas. More rarely, renal pain may be referred to this region, but usually other areas are also involved. The point that the pain was aggravated by eating would go with spasm of the gut, providing the pain were from the intestine or other hollow organ. The pancreas might produce pain due to increased activity induced by the ingestion of food. I think we can eliminate the esophagus and other organs because of the distribution of the pain.

DR. STACY R. METTIER†: Pain from an abnormal gallbladder can be referred to the paraumbilical region and to the left upper quadrant. We should also keep in mind the possibility of pain referred from coronary artery disease and from diaphragmatic hernia.

DR. JOHN B. SAUNDERS**: The presence of pain centered rather indefinitely around the paraum-

* These conferences are to be continued at regular intervals and will endeavor to stress the correlation between disturbed function and the anatomical changes observed in various types of disease.

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bilical region is an outstanding feature in the history of the present case. The area of skin to which the pain has been projected is subserved by approximately the 9th, 10th and 11th thoracic nerves. Pain in the region may be derived from two sources; from irritation of the corresponding segmental nerves or by projection from the more deeply lying viscera. Radicular pain is characteristic, being sharp and lancinating and corresponding exactly to the distribution of the spinal nerve or nerves affected. These features are absent in this case. When derived from deep sources, the quality of the pain is of considerable significance. In disease of the viscera containing muscles, pain usually is rhythmical, while in that of more solid organs, it is apt to be continuous and fluctuating and frequently characterized as aching. The precise areas associated with projection from the viscera have not been determined with any finality, but for practical purposes it is generally agreed that projection from the stomach affects approximately the segments corresponding from T-6 to T-8; projection from the duodenum is similar except that the pain is confined usually to the right side. Pain projection from the gallbladder and its appendages affects segment T-9 and T-10, but again the pain is usually confined to the right. That from the kidney and ureter is usually projected along T-11 to L-1 or L-2. Projection of pain from the small intestine and large bowel corresponds to segments T-9 to T-12 but is usually centered below the umbilicus. On the other hand, in disease of the pancreas, projection is fairly constantly to segments T-8, T-9 and T-10 and, therefore, to the region of the umbilicus.

Dr. Robert Aird‡: In discussing the reference of pain in this patient, the first point concerns the source of irritation causing tenderness in the lower chest. Tenderness and spasm of the lower intercostal muscles involves segmental levels from T-7 to T-12. Aside from the pleura, the most likely cause of this symptom is disease of the liver. Swelling from any cause, whether it be from acute hepatic disease, portal obstruction or carcinomatosis is known to produce tenderness of the lower chest. In this patient, we have evidence of enlargement or swelling of the liver. The fact that the spleen was not enlarged seems to rule out vascular obstruction, and absence of shoulder pain tends to rule out a lesion directly involving the diaphragm. The patient later developed pain in the left flank and groin which may be important in giving us a clue as to the point of origin of his disease. Referred pain of this type involves segmental levels from T-10 or T-11 on down to L-1 or L-2. Lesions involving the pelvis of the kidney or ureter must be thought of in this connection. The pancreas directly overlies the middle portion of the left kidney and, therefore, must be considered as a possible point of origin of the disease process in this patient.

As to low back pain, we must think again of a retroperitoneal or pelvic source, and the patient's conjecture of arthritis is as good as any.

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Dr. Jesse C. Lockhart*: Gastro-intestinal hemorrhage differs from other acute hemorrhage in that the blood is lost into the gastro-intestinal tract. The proteins are digested and absorbed, and azotemia may result. If the kidney function is good, the axotemia is of no clinical significance. However, it has been shown in man that 530 cc. of ingested blood will scarcely raise the blood urea, while 800 cc. will result in a significant degree of azotemia and a decrease in urea clearance. This may be a result of the shock state. Shock is most probably due to reduction of total circulating blood volume: there is a resultant fall in the cardiac output and peripheral vaso-constriction, in an attempt to maintain blood pressure and cardiac output. As little as 50 cc. of blood may produce a black stool; 530 cc. will produce a firm black stool, but not the typical tarry loose stools that we associate with massive gastro-intestinal hemorrhage; 800 cc. of blood produces numerous diarrheal tarry stools. We may conclude that this patient lost somewhere between 800 and 1,600 cc. of blood, which called for the numerous transfusions he received.

Dr. Bierman: In light of the X-ray findings, we can reasonably exclude the stomach, duodenum and gallbladder as the primary site. Normal pyelograms appear to eliminate serious consideration of kidney disease. That strengthens the suspicion of disease in the pancreas and liver, particularly the former. Dr. Crede, will you give the findings at surgery?

Dr. Crede: The left lobe of the liver was normal, but the right lobe contained a well-outlined tumor mass which measured six centimeters in diameter. It had not quite reached the surface of the liver. At the head of the pancreas was a tumor mass which measured 15 cm. in diameter. The gallbladder was quite distended. There was an extensive network of fragile vessels between the neck of the gallbladder and the duodenum as if the patient had developed a tremendous collateral circulation. Doctor Bell thought that this was the source of the bleeding from the gastro-intestinal tract. A cholecysto-jejunostomy was performed and a biopsy was taken in the tumor mass of the pancreas. The clinical impression was carcinoma of the head of the pancreas with metastasis to the right lobe of the liver.

Dr. Warren L. Bostick**: The biopsy reveals pancreatic tissue that retains a clear-cut lobular pattern. Each lobule is composed of distorted small glands. Their cells are slightly pleomorphic, show no mitosis or invasion. The interlobular connective tissue is dense and extensively infiltrated by chronic inflammatory cells. It is this fibrous tissue reaction which has somewhat distorted the finer glandular pattern of the pancreatic parenchymal lobule. At no point are malignant cells seen.

A common error—sometimes unavoidable—in biopsy technique occurred in this patient. Chronic pancreatitis and pancreatic carcinoma usually occur together and may even be confused microscopi-

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cally. Such being the case, pancreatic biopsies must be generous in size, extend deep into the pancreas and be removed from the most tumorous site. Where an apparent and accessible metastasis is noted, it also should be biopsied. If that had been done, it is very likely that the pathologist could have supported the clinical diagnosis of carcinoma, rather than having found only chronic pancreatitis.

Dr. Bierman: The subsequent course of this patient was that he reported to the French Hospital about a month after his discharge from the U. C. Hospital and died within three weeks. There was no jaundice at the time of death. Symptomatology was apparently the same as seen here; no other diagnostic measures were taken.

Contrary to older texts, pain occurs in 70 to 80 per cent of patients suffering from pancreatic tumors, with or without jaundice. In this patient there were no tests on blood amylase or lipase. In some recent studies there has been great emphasis upon tests for pancreatic function in lesions of the upper abdominal area. There has been also a great deal of work on the enzyme diagnosis of cancer. Dr. Shimkin, will you tell us something about this?

Dr. Michael B. Shimkin*: There is no established diagnostic test for cancer, although three or four tests have been used considerably. Unfortunately these tests are empirical, based on theoretical mechanisms and depending more on the phases of the moon than on sound biochemical principles. If we are to have sero-diagnostic tests for cancer they will be for specific types of cancer which will in some way reflect the changes in function of the particular organ or tissue involved. Cancer or, better, neoplastic disease, is not a disease; it is a great group of diseases, and carcinoma of the pancreas probably varies as much from carcinoma of the lung as any two inflammatory processes of these tissues. One rational approach to the study of malignant neoplastic diseases is to study exhaustively the mechanisms involved in each process.

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EDWIN L. BRUCK, M.D.....Council Chairman
L. HENRY GARLAND, M.D.....Secretary-Treasurer
SIDNEY J. SHIPMAN, M.D.....Chairman, Executive Committee
DWIGHT L. WILBUR, M.D.....Editor
JOHN HUNTON.....Executive Secretary

NOTICES AND REPORTS

Minutes of the C.M.A. House of Delegates

First Meeting, April 30, 1947

The First Meeting of the House of Delegates of the California Medical Association, Seventy-sixth Annual Session, was held in the Music Room of the Hotel Biltmore, Los Angeles, California, Wednesday, April 30, at 4:30 o'clock P.M. The meeting was called to order by E. Vincent Askey, Speaker, who presided.

SPEAKER ASKEY: Gentlemen, the House will be in order, please.

The Speaker will call for the Report from the Chairman of the Credentials Committee, Dr. de los Reyes. If there is a quorum, please, Dr. de los Reyes, will you report that to the Chair?

DR. DE LOS REYES: Mr. Speaker, I have in my hand the credentials of fifty-six delegates to this convention. This constitutes a quorum. I, therefore, move that this list of delegates be accepted in lieu of the Roll Call.

DR. EDWARD N. EWER (Alameda County): I second the motion.

. . . The motion was put to a vote and it was unanimously carried. . . .

SPEAKER ASKEY: At this time your Chairman wishes to make one or two explanations.

As you know, by your By-Laws and by the Constitution of the California Medical Association, Delegates and Alternates are elected by their constituent county societies. It is necessary that every Delegate be seated and that a record of it pass through the hands of the Credential Committee. The procedure is this: Any Delegate who is present to be seated, please make contact with the Credentials Committee. If any Delegate is absent or incapacitated from sitting, the elected Alternate is therefore entitled to be seated. Alternates are entitled to be seated before any other member of the Association who may be seated for a vacant place. That has been the custom and it is in the By-Laws and Constitution. If no elected Delegate or Alternate is present to sit, then any accredited member of the Association may be seated as a Delegate with the consent of the House.

It comes to your Speaker's attention that there are one or two counties whose regular Delegates and Alternates are not present and if there are Delegates who wish to be seated, if these men will report to Dr. de los Reyes, Dr. de los Reyes will ask the Speaker that the consent of the House be given.

Your Speaker wishes to announce the following committees: There are four Standing Committees of the House which are called for by the Constitution. The first is the Credentials Committee. That Committee consists of Dr. Joseph M. de los Reyes, Chairman, of Los Angeles; Dr. Orrin Cook of Sacramento, and Dr. A. A. Morrison of Ventura.

Reference Committee No. 1, which has to do with the Report of the Officers and Standing Committees and also the Report of County Society Secretaries, consists as follows:

Dr. L. J. Regan, Chairman, Los Angeles; Dr. Donald Lum, Alameda; Dr. D. D. Roos, Riverside.

Reference Committee No. 2, which deals with the Report of the Council, the Report of the Secretary-Treasurer and the Report of the Executive Secretary, consists of the following members:

Dr. Chester L. Cooley, Chairman, San Francisco; Dr. C. L. Mulfinger, Los Angeles; Dr. Alfred B. Wilcox, Santa Barbara.

Reference Committee No. 3, to whom all resolutions, Amendments to the Constitution and By-Laws, New and Miscellaneous Business is referred, consists of the following members:

Dr. A. E. Moore, Chairman, San Diego; Dr. Eugene F. Hoffman, Los Angeles; Dr. Robertson Ward, San Francisco.

In addition to that your Speaker has appointed the following committee who are tellers for the Session, the Chairman of which will also be appointed Sergeant-at-Arms. This committee consists as follows:

Dr. E. A. Royston, Chairman, Los Angeles; Dr. George D. Huff, San Diego; Dr. V. G. Ghormley, Fresno.

I may call the attention of this body to the fact that all of these Reports will be referred to the appropriate committee. If your Speaker in his judgment finds that certain resolutions deal with the same subject and one has been referred to one committee, your Speaker will then, to expedite the matter, refer that matter which has to deal with the same thing to the same committee.

I need not tell you that upon this body and the shoulders of each and every Delegate rests the responsibility to appear before these committees. If you have any information that is pertinent to any matter which properly goes before that committee, you should appear before it, as the committees are nominated and appointed in order to study more carefully in an orderly way all business referred to them. It is, therefore, your duty to appear before them and discuss such matters as you have information in regard to.

Your Speaker will make further announcements a little later.

At this time I wish to present to you for his address the President of the California Medical Association, Dr. Sam J. McClendon. (Rising applause.)

DR. SAM J. MCCLENDON (President, California Medical Association): Mr. Speaker, Members of the House of Delegates: I gave my speech this morning before the Assembly.

We have a lot of business to transact this afternoon. Therefore, it would be very amiss for the President of this Association to deliver a long address. There are only two or three supplementary things I would like to say. First of all, I appreciate the unanimous support of you people as Members and as Representatives of the Association in the activities of the Association this year. I don't think there has ever been a time in the history of this Association that we have had such unanimous support from every Member of the California Medical Association and I trust that, in the proceedings of this organization here, we may pursue the unanimous opinion about things that may be conntroversial, that we will emerge from this meeting with the unanimous support of our proceedings and deliberations, and that we will go forth from here without any animosity and without any disagreement.

Also, I would like to say that this year we have again met the threats of political medicine in California, and we hope successfully. It has also been due to your activities and your support as Delegates and Members of this Association that we have been able again to defeat the Compulsory Health Insurance Bills that are pending in Sacramento. At least we hope we licked them, although the threat is still with us. Later on in this meeting you will no doubt have the report from the Public Relations Counsel and from the Chairman of the Legislative Committee which will be more pertinent than anything I may say.

I would like to say at this time that it has been a real pleasure to work with you people as Delegeates and Officers of this Association. I would like to commend the Officers of this Association and the Delegates for their honest efforts in behalf of the enterprise and practice of Medicine in California. (Applause.)

Speaker Askey: Thank you, Dr. McClendon.

Your Speaker wishes to make the following announcement. Your Speaker is an anonymous person at this time who has no opinions that will be inflicted upon this body. I have no right to do so and we will at all times strictly adhere, as strictly as possible to the best of my ability, to Roberts' Rules of Order and the specific orders of the Constitution and By-Laws of this assembly. Every member is entitled to a courteous hearing. He is entitled to his rights and they will be granted by your Speaker. That is the duty of your Speaker as I see it.

I want to call attention to the fact that any resolutions which are to be presented before this House must be presented in typewritten form, triplicated. We have stenographers who are available and if you wish to introduce a resolution at the proper time, if you will see the stenographers, you will be given triplicate copies which, after you have introduced from the floor, you may and are required to deliver to our Secretary.

Another question which has been put to your Speaker has been this: If there is desired to be a caucus by any group of this body, what are their rights? It has been the custom—although there is no Constitutional provision for such thing—it has been the traditional custom that upon request of any member of the House, the Speaker of the House of Delegates shall grant a recess of a reasonable time for the holding of such caucus as may be desired.

Now, another question which has been asked me is what a caucus consists of. I would be very glad to explain that. A caucus consists of a group of members of the House, and that means seated Delegates who are empowered to vote, who may hold a meeting to discuss a problem on which they may vote. The rules of caucus are: That each and every man is elected to the delegation here as a representative of the membership as a whole; if he desires to enter into a caucus and be bound by that, it is a moral responsibility that he has to go with that caucus, if he sees fit. He has no need; he has no demands; he has no necessity to enter into that caucus if he does not desire. If he wishes to vote entirely on his own responsibility, and according to his own conscience as he sees fit, he need not caucus and thereby is not hound.

Another question which as been put to me is in regard to the unity rule. There is no call in the Speaker's mind for unity rule because all elections and things of that type in this House are by ballot and by individuals rather than by groups. Therefore, the unity rule would only be at best a caucus rule and the rules of caucus should hold for that. These are your Speaker's opinions and beliefs and are given merely for your information.

I am sorry that I did not refer the address of your President to the appropriate committee. I therefore hereby refer the address of the President, Sam J. McClendon, to Reference Committee No. 1 for appropriate dispatch.

The next will be the Report of your Council, Dr. Edwin L. Bruck, Chairman.

REPORT OF THE COUNCIL

Dr. Edwin L. Bruck, *Chairman*

The Report of the Council has been printed on pages six and seven of the Annual Reports Bulletin and since that time an additional Report is to be made to you from the Council. Therefore, I will suggest, in the interest of time, that you will not read that which is printed on pages six and seven of the Annual Reports Bulletin but that you will proceed to read the additional material which is to be added to the Report of the Council. You all have a mimeographed sheet of this addendum to the Report of the Council which reads as follows:

"1. *Relative to Council Action on the Matter of the Palo Alto Clinic.*

"The Council has adopted the following resolution:

"*Resolved*, That, with the understanding that the Palo Alto Clinic-Stanford University contract will be amended and carried out in conformity with the proposal made by Dr. Russel V. Lee under date of March 13, 1947, and the consent thereto expressed by officials of Stanford University, the Council of the C.M.A. does not consider such contract to be in violation of the principles of medical ethics; and be it further

"*Resolved*, That the Chairman of the Council use his good offices to urge the administration of Stanford University to insert information in its student manual and other publications which will not be prejudicial to the interest of physicians who are not members of the Palo Alto Clinic."

The second addition to the Report of the Council is as follows.

Dr. Eric A. Royston (Los Angeles): I question the authority of this speaker just made.

Speaker Askey: What is your point, sir? I didn't hear it.

Dr. Royston: The point of order at this time is that the Council has adopted the following resolutions, which is presented as a proposed Amendment to the Constitution of the Association. Why does the Council object to that?

Speaker Askey: What is the point of order, sir?

Dr. Royston: I question their authority.

Speaker Askey: This is just a recommendation before you for discussion. The point as to whether it is proper will come up later. I think the Council has the authority to present this and it is not passage of anything at all. It is merely a recommendation to this House.

Dr. Bruck, will you continue?

Dr. Royston: I appeal from the ruling of the Speaker.

SPEAKER ASKEY: There is an appeal. All of those in favor of sustaining the ruling of the Chair will say, "aye."

. . . . A vote was taken on the appeal of the ruling of the Chair and the appeal was lost. . . .

DR. BRUCK: The second addition to the Report of the Council is as follows:

"2. *Relative to Provisions of the Constitution of the California Medical Association Regarding Life Members.*

"The Council has adopted the following resolution, which is presented as a proposed amendment to the Constitution of the Association:

"*Resolved*, That Section 1(e) of Article IV of the Constitution of this Association, California Medical Association, be amended to read as follows:

1(e) *Life Members*

"*Qualifications.*—Life members of the California Medical Association may be elected by the Council on the recommendation of any component county society from those active members thereof who (1) have been active members of this Association continuously for a period of twenty (20) years or more and are more than fifty (50) but less than sixty (60) years of age and have tendered to this Association a life membership fee of one hundred fifty dollars ($150.00) or such other sum as the House of Delegates may from time to time determine; or (3) have been active members of this Association continuously for a period of twenty-five (25) years or more, are more than sixty-five (65) but less than seventy (70) years of age and have tendered to this Association a life membership fee of fifty dollars ($50.00) or such other sum as the House of Delegates may from time to time determine; or (4) have been active members of this Association continuously for twenty-five (25) years or more and are more than seventy (70) years of age. Those active members falling within Classification 4 need not be recommended by any component county society but are eligible to life membership on direct application to the Council. The Council may not elect to life membership any active member whose membership has not been continuous or who has ever been censured, suspended or expelled from the American Medical Association, this Association, any state medical association which is a constituent unit of the American Medical Association, or any county medical society which is a component part of this Association or a unit of any other state medical association.

"*Obligations and Rights.*—Life members shall not pay dues and shall not be liable for assessments of any kind or nature. If active membership in good standing is maintained in his component county society, each life member shall have the right to vote, to hold office, and shall have all other rights and privileges of the Association. If active membership in his component county society is not maintained, the rights and privileges of a life member shall be those of a retired member."

DR. E. T. REMMEN (Los Angeles): A point of order. Is this the introduction of a proposed Constitutional Amendment by the Council?

SPEAKER ASKEY: Is that a point of order or a question for information?

DR. REMMEN: It is a question of information which would lead to a point of order. If it is the introduction of a proposed Constitutional Amendment, according to the order of business, the time of introducing New Business is this evening, later.

SPEAKER ASKEY: Dr. Bruck is speaking not as an individual at this time. He is appearing as the Chairman of the Council. The Chairman of the Council or the Chairman of any committee presents information which the committee he represents thinks should be presented before the House. It has the same effect as the introduction of a Constitutional Amendment or a resolution and is presented in this order and a part of today's order. If an individual wishes to present a Constitutional Amendment or a resolution, that will take its proper place in New Business which comes up later.

DR. REMMEN: That is true, Mr. Speaker, but there is nothing in the Constitution of the California Medical Association which gives the Council any privilege to introduce a Constitutional Amendment out of order. Later if any member of the House would wish to hear this read, he would expect it to be heard at the time when new resolutions and New Business is introduced.

I call for the order of the day.

SPEAKER ASKEY: Your Speaker will rule that the order of the day is being followed because the Report of the Council is in proper order and this constitutes part of the duties of the Council.

Do I hear an appeal?

DR. REMMEN: I appeal from the ruling.

SPEAKER ASKEY: Is there a second?

. . . The appeal was seconded. . . .

SPEAKER ASKEY: It has been seconded. There is no debate on an appeal. All those in favor of supporting the Speaker's decision will say, "aye" and those opposed, "no."

. . . A vote was taken on the appeal and the appeal was defeated. . . .

SPEAKER ASKEY: The Speaker is upheld.

Dr. Bruck, will you continue?

DR. BRUCK: The third addition is as follows:

DR. LOUIS J. REGAN: I question the authority of the Council to introduce this third matter at this time. It is a distinctly prejudicial Constitutional Amendment to lay before the House and will be heard in the proper time.

SPEAKER ASKEY: Your Speaker was upheld in his decision and unless that were overthrown, it will stand.

Do you wish to move a reconsideration of the appeal?

DR. LOUIS J. REGAN: No, sir. I think you misunderstand. I am referring to No. 3 which Dr. Bruck is starting to introduce now. It refers to an Amendment which was laid on a table for one year and it should come up here in the proper time. The introduction of this has the effect of distinctly prejudicing this body in reference to this Amendment, before it is even referred to the Reference Committee. I question the authority of the Council to present this at this time.

SPEAKER ASKEY: Dr. Regan, for the information of the Chair, what is your point as to the time it might be introduced?

DR. REGAN: At the time the Reference Committee makes its report on this Amendment. If we start out to introduce this at this time the effect of this will be prejudicial to the Council at this time.

SPEAKER ASKEY: Your Chairman will rule that it will be a question of that type and, since there is to be open discussion of this, that the Chairman of the Council may present that at the time of the consideration of the other amendments which will be the first order of business of the Second House.

Dr. Bruck, if you will present that at that time, instead of now, I will so rule.

DR. BRUCK: Thank you, Mr. Speaker.

SPEAKER ASKEY: The report of the Chairman of the Council and the Report of the Council as presented by the Chairman of the Council will be referred to Reference Committee No. 2.

The Report of the Trustees of the California Medical Association, Dr. Sam J. McClendon, is next. Mr. President, do you have a supplemental report?

PRESIDENT SAM J. MCCLENDON: No, Mr. Speaker. The report has been published in the bulletin and it is submitted as reported in the bulletin.

Speaker Askey: The report as given will be referred to Reference Committee No. 1. The Report of the Auditing Committee, Sidney J. Shipman, Chairman.

Dr. Sidney J. Shipman: Mr. Speaker and Members of the House: There is no additional report from the Auditing Committee beyond the report that has been printed.

Speaker Askey: The Report of the Auditing Committee will be referred to Reference Committee No. 1.

The Report of the Secretary, Dr. L. Henry Garland.

Dr. L. Henry Garland: There is no additional report.

Speaker Askey: The Report of the Secretary will be referred to Reference Committee No. 2.

The Report of the Executive Secretary. Mr. Hunton, do you have an additional report?

Mr. John Hunton: No additional report.

Speaker Askey: The Report of the Executive Secretary will be referred to Reference Committee No. 2.

At this time a recess was to be called, as announced, for the California Physicians' Service. That is called for 8:30 tonight. It appears at this time on your Bulletin and as the order of business it is being called to your attention.

The next is the Report of the Editor, Dr. Dwight L. Wilbur.

Dr. Dwight L. Wilbur: No additional report, Mr. Speaker.

Speaker Askey: The report as printed will be referred to Reference Committee No. 1.

The Reports of the District Councilors. Do any District Councilors have any additional, supplemental reports in addition to those they have rendered? Hearing no reports of a supplemental nature, I refer all Reports of the District Councilors to Reference Committee No. 1.

The Reports of the Councilors-at-large. Do any Councilors-at-large have any additional supplemental reports to make to those already printed? Hearing none, I refer those reports to Reference Committee No. 1.

The Report of the General Counsel, Hartley F. Peart. Is there an additional report? Mr. Hassard, an associate of Mr. Peart.

Mr. Hassard: No additional report beyond the report as printed.

Speaker Askey: Thank you, Mr. Hassard. As there is no additional report to the General Counsel, I will refer it to Reference Committee No. 1.

The Reports of Standing and Special Committees.

The first of the Standing Committees is the Executive Committee, Dr. Shipman, and do you have a supplemental report?

Dr. Sidney J. Shipman: No additional report.

Speaker Askey: That will be referred to Reference Committee No. 1.

The next is the Committee on Associated Societies and Technical Groups—Anthony B. Diepenbrock.

If there is no additional report, it will be referred to Reference Committee No. 1.

The next is the Committee on Audits, Dr. Shipman.

Dr. Shipman: No additional report.

Speaker Askey: It will be referred to Reference Committee No. 1.

The Committee on Health and Public Instruction, George M. Uhl.

If there is no additional report it will be referred to Reference Committee No. 1.

The Committee on History and Obituaries, Morton R. Gibbons, Sr.

If there is no additional report it will be referred to Reference Committee No. 1.

The Committee on Hospitals, Dispensaries, and Clinics, Clarence E. Rees.

If there is no additional report, it will be referred to Reference Committee No. 1.

The Committee on Industrial Practice, Donald Cass.

Is there an additional report? If there is no additional report, it will be referred to Reference Committee No. 1.

The Committee on Medical Defense, William A. Key.

If there is no additional report, it will be referred to Reference Committee No. 1.

The Committee on Medical Economics, H. Gordon MacLean.

Dr. H. Gordon MacLean: No additional report.

Speaker Askey: The report as printed will be referred to Reference Committee No. 1.

The Report of the Committee on Medical Education and Medical Institutions, B. O. Raulston.

If there is no additional report, the report as printed will be referred to Reference Committee No. 1.

The Committee on Organization and Membership, Carl L. Mulfinger.

Dr. Carl L. Mulfinger: There is no additional report.

Speaker Askey: It will be referred to Reference Committee No. 1.

The Report of the Committee on Postgraduate Activities, John C. Ruddock.

Dr. John C. Ruddock: No additional report.

Speaker Askey: It will be referred to Reference Committee No. 1.

The Report of the Committee on Publications, George W. Walker.

If there is no supplemental report, it will be referred to Reference Committee No. 1.

The Committee on Public Policy and Legislation, Dwight H. Murray.

I believe there is a supplemental report from Dr. Murray who should report to us on the development of the legislative matters to date because many things have happened since his report was printed.

Dr. Murray, do you desire to report?

Dr. Dwight Murray, Trustee of the American Medical Association!

Legislative Committee

Dr. Dwight H. Murray (Chairman, Legislative Committee): Mr. Speaker, Members of the House of Delegates: It is with great pleasure that I give you a report of some of the activities of the Legislative Committee during the past few months. The report, as it appears in the Pre-Convention Bulletin, is a little inadequate but sometimes it is probably best not to write all of the things that have been done so some of the things were left out that I wish to speak about and also I wish to bring your information up to date insofar as I can on what has happened in Sacramento.

This Session of the Legislature is different from other Sessions. We have experienced probably no two Sessions the same, but this is different in that there are so many more bills and so many more things of great importance to the medical profession that it has been quite a job to keep up with them. It continues to be quite a problem, because there are so many things that are still unsettled in the Legislature.

I will call your attention rather briefly to some of the things that have gone on there and try to tell you our position as nearly as I can. First of all, the entire medical profession of the State, I think, is interested in the anti-vivisection bills. As you know, the anti-vivisection movement has been pretty prominent throughout the country. Many states have gone through what we are going through at the present time, and that is a fight in the Legislature over the anti-vivisection movement. The most prominent of them probably was the State of New York. They had quite a struggle in the State of New York and they were successful in solving their problem, I think, in a way that will not cause them any trouble from now on.

The first bill that we had here on anti-vivisection was Assembly Bill 2026. At the time hearings were held, a representative of the medical schools of the State came forward and presented the problem in a very efficient manner, so efficiently that the bill was tabled in committee. This was only on the Assembly side.

Now we still have another anti-vivisection bill. You know, they are not quite satisfied with just one bill. If they can't get in through one alley, they will try the other, so, apparently, now he have another bill pending before the Legislative Committee.

If you read the San Francisco Examiner—I didn't see the Los Angeles Examiner but it is probably the same thing—this morning you will see where there was quite a lot to say about it. This is Assembly Bill 2307 and it has some amendments to it. It was up yesterday afternoon. At that time there was considerable pressure being brought on the Legislature, particularly from the southern part of the State, to pass this bill. For instance, the sponsor of the bill brought in two big baskets of letters. He said, "There are ten thousand letters here all in support of this bill and I understand there are about fifty thousand others that are on the way." Now that means that there will be considerable pressure and that bill will be amended and we will hear later from it.

I can visualize, although I don't see any of the deans here this afternoon from the medical schools, us sending an SOS to all the medical schools of the State to come up and help us, and I am sure they will answer.

The Board of Medical Examiners had quite a number of bills that have been introduced. Most of them have been introduced on the Senate side. According to the Board of Medical Examiners and according to our own attorney at the California Medical Association, they are bills that are helpful to the medical practice generally.

There is another bill, Senate Bill 237. The chiropodists want to be called chiropodist-physicians. It doesn't amount to much. They just want to add the term, "physician" in order that they may qualify under the Labor Code; in other words, they wish to take care of compensation cases. That was tabled without any great difficulty.

Then the Public Health Department has introduced a number of bills, some of them particularly having to do with the counties' care of tuberculars. That is past the committee.

Also, the Public Health Department wants to have a bill for the extension of the Public Health Service to all of the Public Health Services, to all of the counties. That was in for some amendments and there were some amendments introduced. This was heard in Committee yesterday afternoon. Some of the amendments introduced called for considerable argument and discussion, but that will be re-heard. Of course, that bill carried an appropriation, so it will have to go to the Ways and Means Committee and it will probably be quite a while before we will hear from that.

The Hospital Construction Act, Senate Bill 353, and one in which we are all interested, I am sure, because it is the means of getting more hospital beds in California, is up right now. Everybody in California is keenly aware of the need of hospital beds. The Legislators, particularly, say without any fear of criticism, "We don't care what takes place or what goes on; if there is any way to get hospital beds in the hospitals in California, we want to do it." That bill was amended in the Assembly to include voluntary hospitals. As the bill was originally written, it was only made possible for the county hospitals to be recognized in this Act, but now it has been extended to voluntary hospitals.

That will carry then a Constitutional Amendment which will have to be before the voters and the Governor, and everybody will be very much interested in passing this. We will have the assistance of the Governor in getting the Constitutional Amendment passed before the people at the next election so we feel that it is certainly a very worthwhile bill now.

Then there is Senate Bill 512 that has to do with the establishment of hospital districts. The bill passed the last Session of the Legislature and this would enable any district in any community to form a hospital district, something like our sanitation districts, and things of that type.

The California Medical Association wanted some safeguards around the staffs of these hospitals and they wanted these hospitals to be so built that their standards would conform to the standards of the American College of Surgeons.

That met with a great storm of protest. The osteopaths came up in great numbers. They chartered two planes from Los Angeles and there were great numbers from all over the State. The halls were full of osteopaths; they were in the committee room and they were so crowded that nobody else could get in.

The Committee was of the opinion that as public funds were to be used for this, as these hospitals were being constructed out of public funds, there should be no limitation placed on the standards; that is, they don't wish to make the standards mandatory. However, if County XYZ desires to place such a restriction or have such a regulation in its hospital, that will be perfectly proper. That bill has only passed the Senate Committee and you may hear from that later on. I don't know just how that will work out yet, but it won't be too bad, I feel.

Then we have Senate Bill 62. That is the naturopaths' bill. That failed in Committee but it is to be amended. They want to take out the surgical aspect and, of course, the naturopaths weren't asking for very much. They wanted to do surgery and obstetrics and a few other little minor things. That was to be amended and changed and it will probably be brought up for hearing tomorrow, but it will probably be postponed.

And then there are Senate Bills 112 and 1238. The optometrists wanted to have the privilege, if some child came in and was examined and needed glasses, to say, "Well, now, here, you need glasses and you go down here to So and So and get your glasses." That was very ably defeated, largely through the efforts of the California Medical Association. Dr. Madeley of Vallejo appeared for that. He is, as you know, one of the Trustees of the California Physicians' Service.

Then a bill that caused quite a little disturbance, because there is always a little bit of disturbance anyway when women get to fussing about things. This was about the trained attendants. The nurses wanted to have a course of training of nine months in the hospital and people who would take this training would then have to pass an examination before the Board of Nurse Examiners, and they would then be licensed as trained attendants. Well, of course, we need more nurses in California but we didn't feel that that was quite the solution to the problem. The hospitals were very much opposed to it and that bill was tabled by committee. The committee tabled it because there was one group of women arguing one way and another group arguing on the other side, so there wasn't anything for the Legislators to do but maintain neutral ground. All being married, they understood.

Now there is one bill I know you are very much interested in and that is the Governor's bill. In the Senate it is Bill 788, and in the Assembly it is Bill 1500. It was heard

in the Senate before the Committee and it was there some of our erstwhile friends of the medical profession took occasion to speak in behalf of the bill. Right now I want to say that it is most disturbing to have a doctor, a man who has been a member of this House of Delegates, a man who had a lot to say to this House of Delegates at one time, get up before this Committee and argue in favor of that bill. It doesn't speak well for the profession. Certainly when we have all worked so hard against this bill, to have a doctor get up and talk for it is certainly—it doesn't go well.

However, the bill was very ably opposed by members of the California Medical Association. Our President, Dr. McClendon, the Chairman of the Council, Dr. Bruck, our Executive Secretary, Mr. Hunton, and our attorney were in there giving us advice and telling us what were the best things to do, and the bill had a very fine ending. I say, "ending"; it seemed to be an ending, that is, so far as the Senate is concerned. After hearing the proponents and opponents of the bill, the committee decided to take it under advisement. That is a rather strange thing for a committee to do, but it seems that it is equal to tabling the bill, so we feel that so far as that bill is concerned in the Senate, it is tabled. Now in the Senate, they never vote to withdraw a bill from Committee. That has been a rule of the Senate for years and we don't expect it to be changed. Just what they are going to do with the bill in the Assembly, we could not know. We have heard rumors to the effect that they will amend the bill—that is Assembly Bill 1500, which is the identical bill of Senate Bill 788—to make it cover catastrophic illnesses.

You know, when the Governor's bill first came out and even before it came out, it was supposed to cover all catastrophic illnesses. Now, we don't know, but we think that probably that will be their next move in the Assembly and, if that is the case, why, that will be a new fight all over again, which brings me to the point that we are nowhere near through with this thing of compulsory health insurance.

Somebody asked me in the lobby a while ago if I thought we were through. This was the answer I gave him. I said, "I feel that we are somewhere near the middle of the stream and to which bank we are closest, I am sure I don't know, but I know, and I do know without any question of a doubt, that we have a long way to go."

I want to say a few words more. Gentlemen, I feel that so far as we are concerned in the Legislature, we are in a better condition now than we have been at any time since I have been going to the Legislature, and that was in 1940. I feel that the Legislators have very great respect now for the medical profession, more than they have had at any time before. I feel that they know more about our problems and are in sympathy with solving them the way they should be solved. They feel that the compulsory way is not the solution to the problem. Now why is that, I might ask. That isn't due to anything that your Legislative Committee has done. That is not due to any particular thing that any one person has done, but it is due to the combined efforts that the medical profession has been exerting for some time.

For instance, you were very busy in the elections last fall. You got out and you interested yourselves in the campaigns, which you had a perfect right to do. If you hadn't done it, you would have been derelict in your duty. That effort is felt in the Legislature and it is felt very keenly.

I want to take this opportunity to thank the various doctors, the various county societies and the officers particularly and the Council of the California Medical Association for their assistance in all of these problems. You know, this legislative work is not a fair weather job. We are doing legislative work, if you want to call it that—some people prefer to call it politics—every day in the year regardless of whether the Legislature is in Session or not. Gentlemen, I want to thank you for the very efficient job that you have done. As has been said before, it is not from the efforts of any one or any two or any group, but it has been through the combined efforts of the California Medical Association and the efforts that have been put forth by its long-range program.

I can say that the program that has been adopted and has been followed out, I think, has been most successful. And I think that, without the efforts that you gentlemen have put forth and without this long-range program, we would not be in as good a position as we are. Let us hope that we can continue with the united front to battle this thing. I hope that sometime before I die I can say that we are clear across the stream and we don't have to worry about it any more. (Applause.)

SPEAKER ASKEY: Thank you, Dr. Murray.

Dr. Murray's report, with the supplemental addition which he made, will be referred to Reference Committee No. 1.

Next is the Report of the Committee on Scientific Work (Annual Session), Dr. L. Henry Garland.

DR. L. HENRY GARLAND: I would like to make a supplemental report.

SPEAKER ASKEY: If you will, please.

DR. GARLAND: Mr. Speaker: As you are well aware, this seventy-six-year-old body called the C.M.A. is still growing and growing very fast. The meeting places are now too small to permit holding the convention in any one hotel. In spite of the best efforts of your committee this year to plan the meeting rooms for the various sessions and joint meetings, every room overflowed except one. Our apologies are due especially to the Section on General Practice.

The Committee would like to have you re-read the short report on page seventeen of this [Pre-Convention Bulletin] booklet—not now, but when you have the time later, and then have you speak to your own sections tomorrow because your Committee has a certain suggestion in the second paragraph dealing with future meetings.

The Committee would also like to direct your attention to the inside front cover of your program which makes a specific request [regarding time limits for speakers]. This is doubly necessary this year in view of the fact that so many of the rooms are too small. The Committee fears that in future years it will be essential to meet in multiple hotels or else, perhaps, meet in trailers and tents. Thank you. (Applause.)

SPEAKER ASKEY: The report is referred to Reference Committee No. 1.

The next is the Report of the Cancer Commission, Lyell C. Kinney, Chairman.

Is there an additional report, Dr. Kinney? If not, this report will be referred to Reference Committee No. 1.

The Report of the Editorial Board, Dwight L. Wilbur.

DR. DWIGHT L. WILBUR: No additional report.

SPEAKER ASKEY: The Report of the Editorial Board will be referred to Reference Committee No. 1.

Next we take up the Reports of Special Committees. The first is the Report of the Delegates to the American Medical Association, Sam J. McClendon.

DR. SAM J. MCCLENDON: Mr. Speaker!

SPEAKER ASKEY: Dr. McClendon!

DR. MCCLENDON: There has been no additional report concerning the activities of your delegation to the American Medical Association and I would like to give a brief report relative thereto.

As you know, at the present time, California has been accorded an additional delegate so we will now have nine delegates to the American Medical Association, which

makes us, I believe, the third largest delegation in the United States. As Chairman of this Delegation for the past two years, I have been very interested in the activities of the American Medical Association particularly with reference to the stimulation of certain forward-looking programs of the American Medical Association. The delegation has been particularly interested in seeing that the American Medical Association does its own job of public relations. As you know, in the past years, there has been a tendency of the American Medical Association to relegate its spokesmanship to one or two individuals and to have a contact office in Washington and to let the work of the public relations and public policy be done by the State Associations without a national program from that standpoint.

I am glad to say that, largely through the stimulation of the California Delegation, the American Medical Association has been completely reorganized. We now have an able General Manager in Dr. George Lull, who is doing a good job. I feel, and I think our Delegation feels, he is.

Also, the A.M.A. now has a public relations counsel and the public relations of the organization are now routed through the General Manager's Office, and all work of the public relations counsel and all publicity pertinent to the A.M.A. and all council bureaus are consummated through the one office.

I am also glad to say that the American Medical Association has been stimulated from the standpoint of the Washington activities. We now have a representative in the Washington office of the A.M.A. who is functioning, and I feel that this functioning is largely due to the stimulation of the California Delegation and through our efforts in connection with the United Public Health League which we have sponsored for so many years.

We feel as a California Delegation that, if and when the American Medical Association assumes its proper responsibilities from the standpoint of public policy and legislation and public relations, perhaps we may in California delegate the duties of the United Public Health League to the American Medical Association. We feel that from the standpoint of the Delegation, the A.M.A. Delegation, every member of it has done a good job.

We, as the House of Delegates, should give due credit for the good, hard work of these Delegates, who have been to meetings, and served so faithfully. I, as Chairman, can certainly commend them for their efforts not only on behalf of the national medical policies but in behalf of the things that pertain particularly to California. California has been on the firing line as a guinea pig for all kinds of social experiments and public legislation. We are all, as Delegates to the American Medical Association, standing on the basis of voluntary enterprise and also we believe that the American Medical Association should take the stand and occupy the proper position as the spokesman for American Medicine. (Applause.)

Speaker Askey: Dr. McClendon's report will be referred to Reference Committee No. 1.

The next is the Supplemental Report of the Physicians' Benevolence Committee. Axcel E. Anderson.

Is there a supplemental report, Dr. Anderson? Hearing none, this report will be referred to Reference Committee No. 1.

At this time your Speaker is going to stand outside his role a little bit and call attention to the benevolence of the Los Angeles County Medical Physicians' Association whose beautiful car is out in the lobby. I hope you will all see fit to donate to that Association so that they may in turn give you the chance of being donated the Cadillac. This does not need any reference except a reference to your heart to help with this worthy cause.

The next is the Advisory Planning Committee, Mr. John Hunton.

Mr. John Hunton: There is no additional report, Mr. Speaker.

Speaker Askey: There is no additional report at this time so this report is referred to Reference Committee No. 1.

We come now to Old and Unfinished Business. This would take up the Constitutional Amendments or By-Law Amendments which have been proposed, which have been lying on the table for one year and will be considered as the first order of business at the Second Meeting of this House of Delegates in the afternoon of Friday at 4:30.

However, for presentation to you at this time I will ask the Secretary to read those Constitutional Amendments so that they may be before the House and your attention.

PREVIOUSLY PROPOSED AMENDMENTS TO C.M.A. CONSTITUTION

Secretary Garland: Mr. Speaker and Members:

Constitutional Amendment Resolution No. 1

Be It Resolved, That Section 12 of Article X of the Constitution of the California Medical Association is hereby repealed.

Constitutional Amendment Resolution No. 2

Resolved, That the Constitution of the California Medical Assocation shall be amended:

1. By deleting from Article VII, Section 1, Paragraph 4, the words, in line 6 thereof, "or more";

2. By adding to Article VII, Section 1, Paragraph 4, at the end thereof, the words, "and provided further that when any one councilor district shall have more than 1,500 members, one additional councilor-at-large for each additional 750 members or major fraction thereof shall be elected from its membership";

3. By adding to Article X, Section 1, Paragraph 1, at the end thereof, the word, "plus the additional councilors-at-large, as provided herein, in Article VII, Section 1";

4. By adding to Article X, Section 6, Paragraph 1, at the end thereof, the sentence, "Additional councilors-at-large, as provided herein, shall be elected each year when a vacancy exists or is created by increased membership in a councilor district"; and

5. By changing Article X, Section 9, Paragraph 3, thereof, to read as follows: "When a component county society shall have fifteen hundred members two of the councilors-at-large shall be elected from its membership; and when a component county society shall have more than 1,500 members, one additional councilor-at-large for each additional 750 members or major fraction thereof, as herein provided, shall be elected from its membership. The district councilor and two of the councilors-at-large shall be elected in different years in calendar sequence. The additional councilors-at-large shall be elected as herein provided."

Speaker Askey: These are Constitutional Amendments and, following the custom of this House, they will be referred for recommendation to Reference Committee No. 3.

At this time I might state that Constitutional Amendments cannot be amended, deleted or added to. They must be voted on as they have been printed in our *Journal* and as presented to the House.

At this time, Mr. Secretary, are there any others or any Old or Unfinished Business?

SECRETARY GARLAND: Mr. Speaker, there are no others or no Old or Unfinished Business.

SPEAKER ASKEY: At this time the floor will be open to New Business. New Business includes the introduction of any Constitutional Amendments, any By-Law Amendments. I must call attention to the fact that Constitutional Amendments must lie on the table for one year and By-Law Amendments may be introduced at this Session and after twenty-four hours, which would be at the next Session of the House, on Friday, be voted upon. A change in the Constitution or a Constitutional Amendment requires in all cases a two-thirds vote of the House of Delegates.

At this time I will hereby refer and lay on the table for one year the Constitutional Amendment which was presented by Council of this Association and read by Dr. Bruck and it is therefore laid on the table for action of the next Session of this House of Delegates in one year's time.

The Chair will now open the floor for the introduction of New Business. May I state that it might be expedient, as it is now around twenty-four minutes of six, to limit ourselves or to think of the time in which you wish to recess until the meeting tonight. The meeting tonight will be C.P.S. discussion and it will take considerable time. Is it your wish to recess at this time before the discussion or do you wish to go ahead with the introduction of resolutions at this time and then recess later?

DR. CLINE: I move that we recess until 7:30.

DR. SHIPMAN: I will second the motion.

SPEAKER ASKEY: There is a motion which has been seconded that the House recess until 7:30 tonight at which time we would have the presentation of resolutions and any New Business which may occur. Is there any discussion?

. . . There being no discussion, the motion was put to a vote and the motion was lost. . . .

SPEAKER ASKEY: The House is now open for the introduction of Constitutional Amendments or New Business, resolutions.

DR. ERIC A. ROYSTON (Los Angeles):

Resolution Number 1

WHEREAS, The American Medical Association, through its House of Delegates, has urged that every approved hospital in the United States establish on its staff a Section on General Practice; Therefore, Be It

Resolved, That the California Medical Association, through its House of Delegates, direct its Council to communicate the above action of the American Medical Association to the Superintendent of every approved hospital in California; And, Further, Be It

Resolved, That the California Medical Association, through its House of Delegates, directs its Council to inform the Superintendent of every approved hospital in California that the California Medical Association endorses this action of the American Medical Association; And, Therefore, Be It

Resolved, That the California Medical Association, through its House of Delegates, directs its Council to request the Superintendent of every approved hospital in California to take all measures to facilitate the formation of a Section on General Practice on the staff of his hospital with a minimum of delay, so that the doctors doing General Practice may be better able to hospitalize their patients under California Physicians' Service and other similar voluntary insurance plans; and also to give better care to their private patients who are already bitterly complaining about the lack of hospital facilities afforded to the doctor of their choice.

SPEAKER ASKEY: This resolution will be referred to Reference Committee No. 3.

DR. ROYSTON:

Resolution Number 2

WHEREAS, California Physicians' Service is the brainchild of the California Medical Association; And

WHEREAS, The family doctor, or in medical parlance the doctor engaged in General Practice, is doing most of the California Physicians' Service work; Therefore, Be It

Resolved, That the California Medical Association, through its House of Delegates, directs its Council to request the Superintendent of every approved hospital in California to arrange without delay for the doctors on the General Practice Section of its Staff to be admitted to all departments of the hospital so that these doctors may be able to give better care to their California Physicians' Service patients, and patients of other similar voluntary insurance plans, as well as their private patients.

SPEAKER ASKEY: This resolution will be referred to Reference Committee No. 3.

DR. ROYSTON:

Resolution Number 3

WHEREAS, Broadcasts on public health subjects or topics related to medical practice, when presented in good dramatized or other manner can become important educational factors for the public; And

WHEREAS, The American Medical Association and the Los Angeles County Medical Association have been able to secure valuable radio time without cost over various stations, And

WHEREAS, The Los Angeles County Medical Association through its tri-weekly broadcasts over station KGFJ in April of this year was presented one of the five national awards for programs of greatest public interest; And

WHEREAS, Recordings of the Los Angeles programs may be secured at nominal cost for use over local stations in other counties of California; And

WHEREAS, These broadcasts have been shown to be of great value; Therefore, Be It

Resolved, That the attention of the California Medical Association council be called thereto, with instructions to consider whether such a plan would not be preferable to the present expensive, childish, naive, radio program entitled California Caravan.

(Applause.)

SPEAKER ASKEY: This resolution will be referred to Reference Committee No. 3.

Are there further resolutions?

Dr. Lawson!

DR. T. C. LAWSON (Alameda County):

Resolution Number 4

AMENDMENT TO SECTION 8(b) CHAPTER II OF THE BY-LAWS OF CALIFORNIA MEDICAL ASSOCIATION.

Resolved, That paragraph (b) of Section 8 of Chapter II of the By-Laws of this association, California Medical Association, be and the same hereby is amended by deleting the words, "at least six months," and by deleting the remainder of the paragraph beginning, ". . . provided, however, . . .", so that said section shall hereafter read as follows:

"Section 8—*Component County Society Membership*

"(a) *Lists to be Sent to Secretary-Treasurer*

"It shall be the duty of the secretary of each component county society to furnish the Secretary-Treasurer before the first day of March of each year a list of names and addresses of all members in good standing on the first day of January of each year, and to notify in writ-

ing the Secretary-Treasurer of this Association monthly of all changes in membership of the component county society, with corresponding changes of address.

"(b) *Residence Period Required*

"No doctor of medicine, otherwise qualified for membership in this Association, shall be elected to membership in a component county society, unless he shall have actually established his residence in the county prior to the date upon which his application for such membership is acted upon."

SPEAKER ASKEY: This Amendment to the By-Laws will be referred to Reference Committee No. 3 and will be acted upon at our next meeting. It requires a two-thirds vote.

Are there further resolutions to come before this House? Your name?

DR. RALPH T. SMITH (Pomona County): I am Dr. Ralph T. Smith of Pomona.

This has to do with the directory.

Resolution Number 5

WHEREAS, The California Medical Association formerly published a directory of its members, which directory was of great value to every member of the Association and to the public as well; Therefore, Be It

Resolved, That the House of Delegates direct the Council to resume publication of such a directory at the earliest practicable time.

SPEAKER ASKEY: Your first resolution will be referred to Reference Committee No. 3.

DR. SMITH:

Resolution Number 6

WHEREAS, Instructions were given by former Houses of Delegates of the California Medical Association to authorize annual session prizes for scientific exhibits and scientific papers of superior merit; And

WHEREAS, During World War II years, the system fell into disuse; And

WHEREAS, Such money prizes with embossed certificates of award are incentives to the presentation of high grade exhibits and scientific papers; Therefore, Be It

Resolved, That this House of Delegates instructs the Council to provide for a first and second monetary and a third honorable mention prize, one series for exhibits and the other for scientific papers; the Council to appoint a Committee on Prizes consisting of three members, this Committee in turn to have the power to appoint a Secret Committee on Awards, to make recommendations to the Council's Committee; And Further

Resolved, That the monetary amount of a first prize shall be $100.00 and of a second prize $75.00 and honorable mention prize $50.00.

SPEAKER ASKEY: This resolution will be referred to Reference Committee No. 3.

Proposed Constitutional Amendment

DR. T. E. REYNOLDS (Alameda County): Mr. Speaker, this is a Constitutional Amendment relating to a special case with regard to the payment of dues for any medical association, and Amendment to Section 1 of Article XI of the Constitution of the California Medical Association.

Resolved, That Section 1 of Article XI of the Constitution, in this case of the California Medical Association, be and the same is hereby amended by adding to said Section paragraph headings by adding to said Section a provision that the House of Delegates shall have power to reduce the annual per capita assessment of dues upon certain conditions and by re-phrasing said Section to read as follows:

"Section 1.—Annual Assessment of Dues—Other Sources of Funds—Appropriations.

"1. Annual Dues. Funds shall be raised by special annual per capita assessment of dues from the active and associate members, assessment of dues upon the associate members to be one-half of that upon the active members. The amount of the assessment shall be fixed by the House of Delegates by majority vote of the members present and voting.

"Waiver of Dues—War Service. Annual dues may be reduced or waived with respect to those members serving in the armed forces of the United States during the whole or any part of any year. The Council may in its discretion refund in whole or in part from the funds of the Association dues paid in 1940 and in 1941 by or on behalf of active members if such member were at the time actually in the service of the armed forces of the United States.

"Reduction of Dues—Special Cases. The House of Delegates in fixing the amount of annual dues for any year may at the same time provide for a reduction in annual dues for such year for those active members of the Association who during the year are ill or injured and wholly unable to engage in the practice of Medicine or otherwise gainfully employed for a period of three or more consecutive months or for those active members who engage in post-graduate work during the year or for those active members who graduate from medical school less than five years prior to the first day of January in the year concerned.

"The House of Delegates, in providing for a reduction of dues for any or all of the foregoing class of active members, may designate the amount of reduction and proceed where such reduction may be obtained by an active member entitled thereto or may delegate to the Council the power to fix the amount of the reduction and procedure for obtaining same.

"Other Sources of Funds. Special assessment funds may also be raised by any of the following methods:

"1. Publications of the Association.

"2. Voluntary contributions.

"3. Requests, legacies, devises and gifts.

"4. Special assessments levied by the House of Delegates; and

"5. In any other manner approved by the House of Delegates.

"In the event that the House of Delegates levies any special or other assessment other than the annual assessment of dues, it may, in the resolution levying the assessment, determine the time within which such assessment may be paid, the class or classes of members of the Association upon which it is levied, and the penalty, if any, including forfeiture or suspension of membership in this Association or the component county medical society, or both, to result from non-payment thereof within the time prescribed.

"The Appropriation of Funds. Any resolution passed and adopted by the House of Delegates at any regular or special session thereof, which provides for or contemplates the appropriation or expenditure of the sum of more than $1,000.00, shall not be effective for any purpose unless and until approved by the Council. All appropriations, regardless of amount, approved and made by the Council, shall, if expended, be reported to the House of Delegates at its next annual session, and any unexpended portion thereof shall be included in the annual budget.

"Position of Benevolence Fund. At least $1.00 out of the annual dues paid by each member of the Association shall be allocated to the Physicians' Benevolence Fund and shall only be used for the purposes as set forth in the By-Laws."

SPEAKER ASKEY: Constitutional Amendments will lie upon the table subject to printing twice in the *Journal* as required.

DR. WILLIAM N. MAKAROFF (Sonoma County):

Resolution Re: Allocation of time during one session of a major section each year for the discussion of medico-economic problems of current interest and application to the practice of medicine:

Resolution Number 7

WHEREAS, The present policy of the C.M.A.-Scientific Program Committee has been to restrict papers and discussion to purely scientific subjects; And

WHEREAS, The medical economic and medical political problems confronting organized medicine in both local, state, nation wide levels is requiring increasing attention, research and study by physicians individually and collectively; And

WHEREAS, Subjects concerning these matters are frequently only briefly presented in committee, council, or House of Delegate meetings where time is not sufficiently available nor the general convention fully represented or available; Be It

Resolved, That one session of a major section of a general session be set aside for the presentation and discussion of problems and developments in the political, social and medico-economic fields.

SPEAKER ASKEY: That will be referred to Reference Committee No. 3.

DR. MAKAROFF:

Resolution Number 8

Resolution Re: Industrial Cases.

WHEREAS, The Medical Profession is again facing the threat of Socialized Medicine; And

WHEREAS, The C.M.A. has consistently maintained that the patient-doctor relationship should be maintained at all cost; And

WHEREAS, The State Compensation laws as at present constituted permit the interference of a third party in respect to the selection of a physician, a referral to a specialist, or the type of treatment rendered; And

WHEREAS, The said State Compensation laws do not permit the unhampered selection of a physician by a patient; And

WHEREAS, The continued sufferance of the foregoing places a grave doubt as to the sincerity of the stand of the C.M.A. relative to the patient-doctor relationship; Be It Therefore

Resolved, That the Council of the C.M.A. take immediate action to have the State laws so amended as to eliminate these undesirable features in the practice of Industrial Medicine in California.

SPEAKER ASKEY: That will be referred to Reference Committee No. 3.

DR. GEORGE W. CALDWELL (Los Angeles):

Resolution Number 9

WHEREAS, Section 9, Article V, of the Constitution of the California Medical Assocation provides that at least once in ten years upon recommendation of the Council or upon its own initiative, the House of Delegates shall form and group or re-group the component county societies into the number of Councilor Districts as provided by the Constitution; And

WHEREAS, No such grouping or regrouping has been made since May 8, 1929, eighteen years ago; Therefore, Be It

Resolved, That the Speaker be directed to immediately appoint a committee of nine, none of whom are members of the state Council, and one of whom shall be from each councilor district, to survey the membership of the Association by counties and to recommend a just and equitable regrouping according to membership to this House of Delegates for its consideration next year.

SPEAKER ASKEY: That resolution will be referred to Reference Committee No. 3.

DR. CALDWELL:

Proposed Constitutional Amendment

Resolved, That the Constitution of the California Medical Association shall he amended by changing Article XI, Section 1, Paragraph 2 thereof to read as follows:

Annual dues may be reduced or waived with respect to those members serving in the armed forces of the United States during the whole or any part of any year, and

In respect to any member for any cause upon the recommendation of the Council or Executive Board or body with the respective members of the component association or society.

SPEAKER ASKEY: That is a Constitutional Amendment and it will be laid on the table subject to the rules therefor.

Is there anything further?

DR. F. J. GASPARD (Los Angeles County):

Resolution Number 10

WHEREAS, The functions of a coronor are intimately concerned with human life and death, and

WHEREAS, A civic office of such responsibility should not be left to haphazard political or other preference, Be It

Resolved, That this House of Delegates goes on record as favoring provisions which would require candidates for the position of coroner to be graduates of approved medical schools, preferably with special training in pathology and toxicology, And Be it Further

Resolved, That the Council and its officers be instructed to call the attention of the above to the component county societies and their members.

SPEAKER ASKEY: That will be referred to Reference Committee No. 3.

At this time your Chairman will pay no more attention to the watch and anytime you wish to recess, if you will notify your Chairman, he will accept such recommendation.

DR. JAMES C. NEGLEY (Los Angeles County):

Resolution Number 11

Re: Waiver of Dues.

WHEREAS, The California Medical Association will have a reserve fund of approximately $750,000.00 by the end of this year, for which fund there is no apparent present need, and

WHEREAS, The bank credit of the California Medical Association and its power to assess members is sufficient to meet any emergency need, and

WHEREAS, The accumulation of large funds by a scientific and non-profit organization which can present little evidence of recent scientific or altruistic activity in proportion to its fund is susceptible to attack from several quarters, and

WHEREAS, Many of the component county medical associations are in need of additional funds; Therefore, Be It

Resolved, That the California Medical Association waive dues for 1948 in order that those component county societies which so desire may raise their 1948 dues to replenish their treasuries.

SPEAKER ASKEY: That will be referred to Reference Committee No. 3.

DR. BRYANT R. SIMPSON (San Diego County):

Resolution Number 12

Resolution to provide special membership in the California Medical Association for undergraduates, interns and residents, presented by San Diego County Medical Society:

WHEREAS, There are no provisions at the present time for undergraduates memberships in California Medical Association, and

WHEREAS, There is no special provision for interns or resident memberships in California Medical Association, and

WHEREAS, The feeling exists that such membership should be provided in order that these young physicians be indoctrinated into regular medical practices; Be It Therefore

Resolved, That such memberships be offered to those in the above classifications which will offer to them all of the privileges of membership in California Medical Association except that of voting privilege and that these memberships be offered without dues.

SPEAKER ASKEY: This resolution will be referred to Reference Committee No. 3.

DR. HAROLD K. MARSHALL (Los Angeles County): This is a resolution regarding the United Public Health League.

Resolution Number 13

WHEREAS, The California Medical Association has been expending fifteen or twenty thousand dollars annually in support of the United Public Health League, largely for the maintenance of an office in Washington, and

WHEREAS, Similar activities are now being carried on by the Washington office of the American Medical Association, thus rendering superfluous the activities of the United Public Health League and the large expense thereby entailed; Therefore, Be It

Resolved, That the Council of the California Medical Association be instructed to terminate its financial support of the United Public Health League at the earliest date consistent with any contractual obligations which may have been incurred.

SPEAKER ASKEY: That resolution will be referred to Reference Committee No. 3.

Dr. MacLean asked for the floor.

DR. H. GORDON MACLEAN (Alameda County):

Proposed Constitutional Amendment

Amendment to Section 1 of Article IV of the Constitution of the California Medical Association, Subdivision (f): *Resolved*, That Section 1 of Article IV of the Constitution of this Association of the California Medical Association is hereby amended by adding to the end of the sections, paragraph (f) of said subdivisions the following:

> (f) Except that an active member who is gainfully employed whether on retainer, salary or commission, whether retained by this Association or by any component county society or any corporation, association or organization controlled by this Association or any component county society, may not hold office in this Association or be a member of this House of Delegates during such time as he is so gainfully employed or retained.

As to the second paragraph of said subdivision (f) of Section 1 of Article IV, it shall hereby read as follows:

> Whereas, an active member shall have the right of sufferance privileges of the Association as an active member who is so gainfully employed whether the compensation is a retainer or other method by this Association or by any component society or by any corporation controlled by this Association or any component county society but may not hold office in this Association or be a member of the House of Delegates during such time as he is so gainfully employed or retained.

SPEAKER ASKEY: A Constitutional Amendment will be laid upon the table subject to the rules of such things.

DR. WILLIAM G. DONALD (Alameda County): Mr. Speaker and Gentlemen of the House of Delegates:

Resolution Number 14

WHEREAS, The public relations of physicians evolve from personal relations between patient and physician; and

WHEREAS, Good public relations are not created by publicity and political propaganda; and

WHEREAS, The California Medical Association has no department of public relations; and

WHEREAS, The present paid public relations counsel is not a part of C.M.A. but is hired under contract for purposes of political expediency to forestall compulsory health insurance, and is not hired to promote fundamental public relations between individual doctors and patients; and

WHEREAS, Public relations must be improved, first by the individual physician and second by the component county medical associations; Therefore, Be It

Resolved, That the House of Delegates order and direct the Council of the C.M.A. to immediately create a Department of Public Relations to study the public relations between patients and individual physicians of California, and to aid and advise county associations in furthering public relations; and Be It Finally

Resolved, That $50,000.00 be allocated for the purposes of this department.

SPEAKER ASKEY: The resolution will be referred to Reference Committee No. 3.

Dr. Mulfinger!

DR. CARL L. MULFINGER (Los Angeles): Mr. Chairman and Members of the House of Delegates: This resolution slightly overlaps the one just read.

Resolution Number 15

WHEREAS, Certain matters pertaining to public relations and medico-economics can often be better discussed and acted upon at the county association level; and

WHEREAS, The Presidents and Secretaries of the aforesaid organizations, at state meetings quarterly or semi-annually, can bring more easily the results of such discussions for ratification and action to their constituent bodies; Therefore, Be It

Resolved, That the House of Delegates of the California Medical Association authorize such meetings at the expense of the respective county association, and the procedures so determined upon for the county level be subject to the ratification or amendment of the Executive Officers and Council of the California Medical Association, these meetings being subject to the call of three county association secretaries.

SPEAKER ASKEY: This resolution is referred to Reference Committee No. 3.

DR. LAWRENCE L. CRAVEN (Los Angeles County):

Resolution Number 16

WHEREAS, The California Medical Association apparently will possess a cash reserve of about $700,000.00 at the end of this year for which there is no apparent need, and

WHEREAS, The high dues of the past two years have caused many members to resign, obtain leaves of absence or retire from active membership and have brought hardship to many others, and

WHEREAS, The accumulation of large amounts of money is unsuitable to the purposes of a scientific society, and may arouse suspicion as to its actual purposes and its right to the status of a scientific society, and

WHEREAS, It appears that the efforts of several of the component county societies in the field of public education and good public relations have been more effective than those of the state organization although with a comparatively small expenditure of money; Therefore Be It

Resolved, That dues to the California Medical Association for the year 1948 be set at $30.00; And, Be It Further

Resolved, That each component county society be urged to create a public relations fund for use at the county level by increasings its dues by a reasonable amount.

SPEAKER ASKEY: That resolution is referred to Reference Committee No. 3.

Dr. Shephard!

DR. JOHN HUNT SHEPHARD (Santa Clara County): The Delegates of the Santa Clara Medical Society by a majority vote of the members instructed the introduction of the

following resolution to the House of Delegates of the California Medical Association at the meeting April 30 to May 3, 1947.

Resolution Number 17

WHEREAS, The members of the Santa Clara County Medical Society were active in the development of the California Physicians' Service and have heartly supported the same, and believe that the California Physicians' Service is the most wholesome means of providing voluntary health protection and cannot be equaled by any compulsory health plan; and

WHEREAS, The members of the Santa Clara County Medical Society have heen willing to make all sacrifices demanded by C.P.S.; and

WHEREAS, The growth of C.P.S. is rapidly removing from the field of the practice of medicine on the customary fee-for-service basis a large number of individuals who cannot be classed in the low-income group; and

WHEREAS, The Santa Clara County Medical Society believes that its members are being asked to care for this ahove average income group at an unjustified economic sacrifice; and

WHEREAS, It appears that C.P.S. has greatly deviated from the original purpose for which it was founded in 1937; Therefore, Be It

Resolved, That the C.P.S. adopt the California median income as appropriate level for full coverage protection; And Further Be It

Resolved, That it be the obligation of the patient to establish his eligibility for full medical coverage.

SPEAKER ASKEY: The resolution is referred to Reference Committee No. 3.

DR. ROBERT A. SCARBOROUGH:

Resolution Number 18

WHEREAS, The American Medical Association has caused a study to be made by an independent public relations counsel of the needs of the American Medical Association with respect to puhlic relations, as well as other phases of the American Medical Association's activities; and

WHEREAS, The public relations counsel employed by the Amercian Medical Association has recommended that the American Medical Association undertake a comprehensive public relations program; Now, Therefore, Be It

Resolved, That the Delegates of this Association to the House of Delegates of the American Medical Association are hereby instructed to formulate and present to the House of Delegates of the American Medical Association a suitahle resolution requiring that the American Medical Association forthwith put into effect and fully carry out the recommendations of the puhlic relations counsel (commonly known as the Rich Report) at the next meeting of the House of Delegates of the American Medical Association, And Be It Further

Resolved, That the Delegates of this Association to the American Medical Association use their best efforts to cause the House of Delegates of the American Medical Association to take all steps necessary to place into effect a sound and comprehensive public relations program on a nation-wide basis and carried on by the American Medical Association.

SPEAKER ASKEY: This is referred to Reference Committee No. 3.

DR. SCARBOROUGH:

Resolution Number 19

WHEREAS, The Alameda County Medical Association has pioneered in this state the establishment within a County Medical Society of a Bureau of Medical Economics aimed at improving the confidential relationship between doctor and patient, contemplating in this manner the promotion of sound and lasting good relationship between the medical profession and the puhlic; and

WHEREAS, Other County Societies in the San Francisco Bay Area have joined with the Alameda County Medical Association in the extension of the Bureau of Medical Economics to the entire San Francisco Bay Area; and

WHEREAS, It is deemed desirable and in the best interest of the medical profession that Bureaus of Medical Economics be established in other County Societies as soon as such may be done properly and efficiently; Now, Therefore, Be It

Resolved, That a special committee be appointed by the Speaker to study the purposes, objects and methods of operation of the Bureau of Medical Economics as functioning in the San Francisco Bay Area, and to report to the next annual session of the House of Delegates its findings and recommendations with respect to the extension of the Bureau of Medical Economics to other areas of the state, or with respect to the creation of new and additional Bureaus of Medical Economics in other areas of the state.

SPEAKER ASKEY: This resolution will be referred to Reference Committee No. 3.

DR. E. T. REMMEN: The following resolution was unanimously adopted at the caucus of the Los Angeles House of Delegates:

Resolution Number 20

WHEREAS, The large increase in recent years in the dues of the California Medical Association has encouraged massive expenditures by the Association in various fields of activity not only within the state but elsewhere, and

WHEREAS, Under such conditions it seems wise that a thorough and impartial study be made of the various activities now being carried on by the California Medical Association or under its sponsorship, and

WHEREAS, Large sums have been expended for radio, newspaper and other publicity, which work might perhaps be done more effectively and economically by the employment of a full time publicist of demonstrated ability and experience, or by an executive secretary possessed of such qualifications; Therefore, Be It

Resolved, That a special Committee on Survey is hereby created, to consist of seven members, selected as follows: Two members to be appointed by the Council and one member to he selected by each of the following component county societies: San Francisco, Los Angeles, Alameda, Sacramento and San Diego. The Committee shall select its own chairman and secretary. No member of the Council and no officer of the Association shall he a member of the Committee. The Committee on Survey shall complete its work and file its report with the Secretary at least three months before the 1948 annual session. The Secretary shall then immediately send copies of the report to the secretaris of the component county societies for the consideration of such societies; And, Be It Further

Resolved, That the Council be requested to provide the Committee with such funds for reasonable and necessary expenses and with such further assistance as the Committee may request.

SPEAKER ASKEY: That will be referred to Reference Committee No. 3.

DR. REMMEN:

Resolution Number 21

WHEREAS, The purposes of the California Medical Association, according to its Constitution, are to promote the science and art of medicine, the protection of public health and the betterment of the medical profession and to promote similar interests on the part of its component county societies, and

WHEREAS, In recent years this Association has largely lost sight of these, its proper objectives, and has instead

devoted a major portion of its efforts and a vast amount of money to political activity; Therefore, Be It

Resolved, That this House of Delegates instruct the Council to direct the activities of the California Medical Association into fields suitable for a scientific and professional organization, including the following:

1. Encouragement of laboratory and clinical research, possibly through grants-in-aid, and the establishment of a system of prizes and awards for meritorious contributions to medical knowledge and literature.

2. Establishment of a library service whereby the current periodicals at least are made available to members who lack convenient access to established libraries.

3. Study of the great shortage of nurses, the reasons therefor, and means of encouraging and aiding young women to become nurses.

4. The development of plans for giving short post-graduate courses or clinics throughout the year in various parts of the state.

5. The encouragement of voluntary health insurance plans offering reasonably free choice of physicians in general for persons of low income level such as those of private insurance companies, industries, and group prepayment clinics, rather than continuing heavy expenditures to promote California Physicians' Service, which to date has aroused no great enthusiasm.

6. The training of members of the California Medical Association in methods of gaining the friendship, confidence and good will of their patients.

7. Abandonment of the attitude of fear of compulsory health insurance which has stultified and paralyzed this House of Delegates since 1935 when, in panic, it actually sought to obtain passage of such a law, thereby encouraging proponents of such legislation everywhere.

8. Making available group health and accident insurance for members of the smaller county units.

9. Adoption of a vigorous, and a constructive program to bring adequate hospital and medical care to the people of California on a sound basis, similar to the plan recently adopted by the State of North Carolina on the urging of the state medical society where 48,000,000 dollars will be spent in the next five years to enlarge existing private hospitals, build new private hospitals, state mental hospitals, and rural health centers, to improve medical teaching facilities, and provide care on a non-burcaucratic basis for every citizen of the state whether rich or poor, and finally

10. The assuming of a spirit of optimism toward the future, or realization that the doctor is year by year increasing in public estimation through his scientific attainments, that his place in society is secure, and that no one but himself or his chosen representatives can do him serious harm.

Speaker Askey: That will be referred to Reference Committee No. 3.

Dr. Burt L. Davis:

Resolution Number 22

Whereas, The California Medical Association is vitally interested in all plans of prepaid health and medical insurance, and

Whereas, There is increasing public interest and demand for such insurance; and

Whereas, The existing forms of such insurance can be improved; Therefore, Be It

Resolved, That this House of Delegates of the California Medical Association authorizes the appointment of a committee for the purpose of studying health insurance in all of its phases and ramifications; And Be It Further

Resolved, That this committee is to report to the Council of the California Medical Association and to the next meeting of the House of Delegates.

Speaker Askey: This will be referred to Reference Committee No. 3.

Dr. Davis:

Resolution Number 23

Whereas, There has been considerable uncertainty among many members of the California Medical Association regarding the propriety of certain types of prepaid medical contracts; and

Whereas, The ethics of such contracts have been questioned and various differing interpretations have been derived; and

Whereas, This has operated to the detriment of certain members of the California Medical Association who did not feel justified in participating in experimental procedures as long as this question remained unanswered; Therefore, Be It

Resolved, That this House of Delegates of the California Medical Association authorizes the Council immediately to restate the Code of Ethics and clarify it for the benefit of its members! And, Be It Further

Resolved, That this House of Delegates disapproves the principle that the freedom of choice of physicians may at some times be restricted for the sake of expediency; And, Be It Further

Resolved, That this House of Delegates disapproves of types of contracts in which the Medical Administrator is in a position to benefit financially by the referral of such beneficiary members to members of any one group.

Speaker Askey: That resolution will be referred to Reference Committee No. 3.

Dr. Robert W. Meals (Los Angeles County):

Resolution Number 24

Whereas, This House of Delegates last year ordered that a history of the California Medical Association be prepared, which work is in progress, and

Whereas, Certain funds are necessary for travel, secretarial, postage and other expenses to complete the work properly; Therefore, Be It

Resolved, That the Council be requestetd to provide the Committee on History with such reasonable sums from time to time as may be needed for this worthy purpose.

Speaker Askey: This will be referred to Reference Committee No. 3.

Dr. Dudley Saeltzer (Sacramento):

Proposed Constitutional Amendment

Be It Resolved, That the Constitution of the California Medical Association be amended as follows:

Section (f) be added to Article IV to read as follows:

(f) Active Members

Qualifications.—The Council may elect as inactive members on recommendation of the component county society concerned any member in good standing who leaves his practice for a period of six or more months to engage in bona fide study or who leaves his practice by reason of protracted illness or on whom payment of dues will be a hardship.

Obligations and Rights.—Any member, not paying dues, shall not have the individual right to vote or hold office nor hold an office during the period away from office or shall relinquish that office.

Speaker Askey: That is referred to Reference Committee No. 3.

Dr. Burt Church (Los Angeles County):

Resolution Number 25

Whereas, This House of Delegates in May, 1944, (Resolution No. 1, 1944 Session), ordered the establishment of a

suitable system of prizes and awards for the best research by internes, residents and young physicians, and

WHEREAS, The officers and Council of the California Medical Association have failed to carry out this instruction; Therefore, Be It

Resolved, That the House of Delegates calls attention to its previous resolution and directs that its instructions be complied with.

SPEAKER ASKEY: That will be referred to Reference Committee No. 3.

DR. J. FRANK DOUGHTY (San Joaquin County): I move that we recess to 8:00 o'clock.

. . . The motion was seconded. . . .

SPEAKER ASKEY: It has been moved and seconded that we recess to 8:00 o'clock. Is there any discussion on this motion?

. . . There being no discussion on the motion, the motion was put to a vote and it was carried unanimously. . . .

SPEAKER ASKEY: Before you go I have several important announcements.

Resolutions will be in order after the recess so don't be afraid you won't be heard. This Speaker will let every person be heard who wishes to present a resolution.

The Chairmen of all Reference Committees are requsted to come to the desk and receive their reports assigned to them after this meeting adjourns tonight. The meeting places of the Reference Committees will be announced later.

We will recess until 8:00 o'clock.

. . . A recess was taken at 6:25 P.M. . . .

POST-RECESS MEETING

. . . The Post-Recess Meeting was called to order at 8:15 P.M., the Vice-Speaker, Dr. L. A. Alesen, presiding. . . .

VICE-SPEAKER ALESEN: Are there any further resolutions?

DR. HENDERSON:

Resolution Number 26

WHEREAS, The American Medical Association and the Los Angeles County Medical Association regularly obtain free radio time on various stations by producing programs of such great public interest that stations are willing to broadcast them as a public service, and

WHEREAS, The California Medical Association pays commercial rates for radio time; Be It

Resolved, That the Council be directed to attempt to obtain free radio time by producing programs of similar great public interest.

VICE-SPEAKER ALESEN: This resolution will be referred to Reference Committee No. 3.

Are there other resolutions?

DR. PETER BLONG (Los Angeles County):

Resolution Number 27

Resolved, That the By-Laws of the California Medical Association shall be amended:

1. By deleting Paragraph 1, of Section 4, of Chapter VII; and

2. By adding the following as Paragraph 2, of Section 5, of Chapter VII:

"Whenever the author of a paper read before this Association has not been advised by the Committee on Publications, or the Editor of CALIFORNIA MEDICINE within ninety days after the date of the reading of the paper, that the paper is considered suitable for publication in the official publication of the California Medical Association and will be published there within a period of one year of the date of the reading of the paper, the author of the paper may, if he so desires, offer it for publication elsewhere."

VICE-SPEAKER ALESEN: That is an Amendment to the By-Laws. It will be referred to Reference Committee No. 3 and reported on Friday. It requires a two-thirds vote for passage.

Are there other resolutions to be presented at this time?

A MEMBER (Long Beach):

Resolution Number 28

WHEREAS, We are the Galen Club, representing approximately eighty doctors of medicine in Long Beach, and

WHEREAS, We are an organization which has actively supported the development of voluntary plans of prepaid medical care, and

WHEREAS, The greater majority of our number are professional members of California Physicians' Service, and

WHEREAS, The finding of our public relations committee have indicated a tendency toward a lack of enthusiasm on the part of most physicians toward whole-hearted support of the C.P.S. in its present form, and

WHEREAS, The whole-hearted support of the entire medical profession is essential for the successful expansion of the C.P.S.;

THEREFORE, We propose that the following resolutions concerning changes in the present conduct of the C.P.S. be given serious consideration by the members of the House of Delegates at their present meeting:

1. That the present practice of paying doctors of Osteopathy for treatments rendered to beneficiary members be discontinued.

2. That all beneficiary membershihp cards should clearly indicate whether said member had an income more or less than $3,000 per year at the time of issue; and that the beneficiary in the income bracket about $3,000 be more clearly informed as to the *indemnity*.

3. That the present fee schedules be revised to give a higher unit value for those operative, diagnostic, and therapeutic procedures which require more than an ordinary amount of technical skill and training.

VICE-SPEAKER ALESEN: That resolution will be referred to Reference Committee No. 3.

Are there further resolutions to be presented at this time?

Dr. Remmen!

DR. E. T. REMMEN (Los Angeles County):

Resolution Number 29

WHEREAS, The Constitution and By-Laws of the California Medical Association are obsolete, outgrown and no longer suited to the needs of the organization; Therefore, Be It

Resolved, That a committee be selected to study and revise these documents and to present a proposed revision at the next annual session, or at a special session of the House of Delegates, and that the committee be constituted as follows: One member from each of the seven largest component socities, to be selected by the board of councilors or directors of those societies, and one member from each of the nine councilor districts to be appointed by the California Medical Association Council. No member of the committee shall be a councilor or officer of the California Medical Association, And Be It Also

Resolved, That the following objectives be sought:

1. Direct election by the membership of councilors and delegates.

2. The elimination of elections of councilors and officers at annual conventions if practicable.

VICE-SPEAKER ALESEN: That will be referred to Reference Committee No. 3.

Are there any further resolutions to be presented at this time?

Does anyone have any items of New Business to bring before the House?

If not, we are about to adjourn for the Session of the California Physicians' Service.

There are two or three announeements that we would like to have made at this time.

. . . Announcements. . . .

VICE-SPEAKER ALESEN: Now, at this time, just before we turn the business over to the California Physicians' Service, this is your last opportunity for any New Business and otherwise, when this particular Session is adjourned, it is adjourned until the next regular meeting which is set at 4:30 on Friday which is to be held in this room.

If there are no other items to come heforc the House at this time, this meeting will stand adjourned until Friday.

Dr. Goin from the California Physieians' Serviee will now take over the meeting.

. . . The House of Delegates recessed at 8:30 P.M. . .

SECOND MEETING OF THE C.M.A. HOUSE OF DELEGATES

May 2, 1947

The Second Meeting of the House of Delegates of the California Medieal Association, Seventy-sixth Annual Session of the Association and Forty-fourth Annual Session of the House of Delegates, was held in the music room of the Biltmore Hotel, Los Angeles, California, May 2, 1947. The meeting was called to order at 4:30 P.M. by Dr. E. Vincent Askey, Speaker of the House of Delegates.

SPEAKER ASKEY: Will the Delegates please be seated?

I will call the attention of the members of the House to the fact that the Delegates are to be seated in front of the aisle.

Your Speaker will call for a preliminary report of the Chairman of the Credentials Committee, Dr. de los Reyes. Will you please report if there is a quorum in the House?

DR. DE LOS REYES: Mr. Speaker, there is a quorum.

SPEAKER ASKEY: There being a quorum, the House is in order for business.

The first order of business is the Roll Call. Your Speaker again at this time calls attention to the procedure in seating Delegates. The Constitution and By-Laws of the California Medical Association state that all Delegates and Alternates shall be elected by their component or constituent county societies and that all Delegates who have been regularly elected and who have presented their credentials to the Credentials Committee shall be seated first. In case there is an opening and no Delegate who has been regularly elected is present or if one desires not to sit, then a regularly elected Alternate may be seated. If there are no Alternates present and desiring to sit for the open seat of the Delegate, then, with permission of the House, any member of the California Medical Association from that constituent county may be seated.

It has been also the rule, and it is in the Constitution, that the Secretary of eaeh county society shall present a list of all Delegates and Alternates to the Secretary. I believe that has been done. It must be done if it has not heen done.

We will proceed, Mr. Secretary, with the Roll Call.

. . . Dr. Garland, the Secretary, called the Roll. . . .

SPEAKER ASKEY: The Roll Call as recorded by your Secretary will stand as the official Roll of this House which may be changed according to the rules of the By-Laws as established and as explained before by your Speaker.

At this time the next order of husiness is the Secretary's announcement of the Council's selection of the place for the 1948 Annual Session.

Mr. Secretary, will you announce the recommendation of your Council for that meeting?

SECRETARY GARLAND: Mr. Speaker, the City of San Francisco, by the Golden Gate, has been chosen for the 1948 session in order that you may have a cool meeting of the House of Delegates.

There have been rumors concerning the health of our former Counеil member, Dr. Tom Kelly. We are happy to inform you that he is feeling better.

SPEAKER ASKEY: I think we all rejoice in knowing that Tom is feeling better. I am certain if this Association would like to send Tom a telegram, it would be a magnanimous gesture. A motion to send Dr. Tom Kelly a telegram wishing his speedy recovery is in order.

. . . It was moved, seconded and unanimously carried that a telegram be sent to Dr. Tom Kelly. . . .

SPEAKER ASKEY: The meeting will be held at the time selected by the Counеil in San Franeisco at which time you will be notified.

The By-Laws and Constitution of this society require that the Council fix the order of husines for this meeting. At the meeting yesterday morning the Council suggested and fixed the following order of business. It was felt by the Council that the full knowledge of all details that would be discussed later would be pertinent to start with. They, therefore, placed in the order of business at this spot a report from your Public Relations man, a member of the firm of Whitaker and Baxter. They placed also the presentation of the hudget as recommended to you by the Council and the recommendations of the Council as to proposed dues. This is the order of business unless the House wishes to place it some place else. If it is your pleasure to do so, you have the privilege of making changes because it is merely the order of the business as settled by the Council. Following that immediately would then he the next order of business whieh is number five and which was already placed there by the Counеil. It was thought by the Council and so transmitted to your Speaker that, if you have no objections to that order of business, such a session with the presentation of the necessary factual things to you should be an Executive Session. If it is your desire, if it is your pleasure, your Speaker will entertain any motion which must come from the House. If not, the report, as is now my understanding, from Mr. Whitaker will be the first order of business. We will have his presentation first. Mr. Clem Whitaker will report to you on the situation of public relations and this will be followed by a presentation of the complete budget and the recommendation of dues.

Is it your pleasure that this be an Executive Session?

DR. E. EARL MOODY: I move that we go into Executive Session.

. . . The motion was seconded. . . .

SPEAKER ASKEY: Is there any discussion?

In that motion for Executive Session, your motion should include who is to remain in the Session. For your edification it has been the past procedure of this House to allow all accredited members of the California Medical Association and employees who are necessary to give information to this House to be present. I want to call your attention to the fact, before you vote, that if this Executive Session is called for it is your bounden duty then to maintain entirely closed the proceedings of that House until any proceedings of this House may have been confirmed or arrived at in open session. You are bound by the exeeutive ruling to keep inviolate the things here discussed. The motion is before you.

A MEMBER: A point of order. Does it include the county officers and executive secretaries?

SPEAKER ASKEY: The motion before me, sir, at this time is solely that we go into Executive Session. Is it your wish that it be clarified?

DR. A. E. MOORE: I will amend the motion so that the motion will read that we go into Executive Session and that we shall include all officers which would include members of the county societies and paid employees of the

institution and that all members of the California Medical Association who may be present.

SPEAKER ASKEY: You have heard the motion. That motion would then move that we go into Executive Session and that nobody be allowed except all members of the California Medical Association and such employees as may be needed for information.

A MEMBER: I move to amend the motion to include all employees of the county medical societies.

. . . The amendment was seconded. . . .

SPEAKER ASKEY: Is there any discussion on the amendment which is to include all employees of the county medical societies? Do you mean any such as may be designated by the Secretary or President of the county societies? If it is as it stands, is there further discussion? If not, the question would be on the amendment that would be the addition of the county medical society employees.

. . . The motion as amended was put to a vote and it was carried. . . .

SPEAKER ASKEY: It is carried and the motion now before you is the motion as amended. Is there discussion further on this motion?

. . . There being no further discussion, the motion as amended was put to a vote and it was carried. . . .

SPEAKER ASKEY: It is carried.

(The House here went into Executive Session.)

* * * * *

SPEAKER ASKEY: We are now out of Executive Session.

In order to clarify the thing, before we go on any longer, a motion would be in order that this House of Delegates, now in regular session, confirm the action previously taken by the House. (This was consideration of Amendment No. 1, and thereby the Amendment was defeated.)

. . . It was moved and seconded that the House of Delegates now in regular session confirm the action previously taken by the House; the motion was put to a vote and it was unanimously carried. . . .

SPEAKER ASKEY: At this time the question comes before you on the adoption of the proposed Constitutional Amendment, number 2. Are you ready to vote?

DR. MOODY: I move that the vote be cast by secret ballot.

DR. SHIPMAN: I will second the motion.

. . . The motion was put to a vote. . . .

SPEAKER ASKEY: The opinion of the Chair is that the motion is carried.

. . . The ballots were passed to the Delegates. . . .

SPEAKER ASKEY: At this time, in order to save time, the President of your Association asked me to explain the manner of voting. If you want this Constitutional Amendment adopted, you will vote "yes"; if you want it defeated and not adopted, you will vote "no." Is it understood?

. . . Voting. . . .

SPEAKER ASKEY: After you have voted, if Dr. Lowell Goin is here, immediately after the ballots are collected, we will recess for the meeting of the California Physicians' Service.

Are all ballots in the hands of the tellers? If so, the ballot is declared closed and the tellers will count the ballots and make a written report to the Secretary of this Association.

At this time the House of Delegates is in recess until after the meeting of the California Physicians' Service, at which time we will immediately re-convene. We are in recess.

. . . The meeting of the House of Delegates recessed at 9:30 P.M. . . .

* * * * *

POST-RECESS MEETING

. . . The meeting was called out of recess at 9:45 P.M., the Vice-Speaker, Dr. Alesen, presiding. . . .

Election of Officers

VICE-SPEAKER ALESEN: The first order of business is the selection of the President-Elect.

Dr. Mulfinger!

DR. MULFINGER: Mr. Chairman and Members of the House of Delegates: It is always a pleasure to nominate a fellow colleague who performs his duties well. I know of no one in this body who has more precedent, more fair-mindedness and who has done more hard work than our good friend, Dr. Vincent Askey. It is therefore a great pleasure that he be nominated as President-Elect of the California Medical Assaciation. (Hearty Applause.)

VICE-SPEAKER ALESEN: The Chair recognizes Dr. Glenn Curtis of Brea.

DR. GLENN CURTIS: Mr. Speaker, Delegates, Ladies and Gentlemen: The California Medical Association is a great organization. We are taking the leadership in scientific medicine. We are also taking the leadership in economical medicine.

At this time I think there is no doubt that in Dr. Vincent Askey as the nominee for President-Elect of this Association, we have an outstanding doctor. We have a leader in the profession. It is with great honor and with pleasure that I second the nomination of Dr. Vincent Askey for President-Elect. (Applause.)

VICE-SPEAKER ALESEN: Are there any further nominations for the office of President-Elect?

. . . It was moved, seconded and carried that the nominations be closed and that the Secretary be instructed to cast a unanimous ballot; the motion was put to a vote and it was unanimously carried. . . .

VICE-SPEAKER ALESEN: It is so ordered.

SECRETARY GARLAND: Mr. Speaker, I hereby cast the ballot.

VICE-SPEAKER ALESEN: Dr. Vincent Askey is elected as the President-Elect. (Rising Applause.)

Members of the House of Delegates: I present your President-Elect, the Speaker of the House of Delegates, Dr. Vincent Askey.

DR. VINCENT ASKEY: Ladies and Gentlemen: There is nobody in the State of California and in our honored profession who could fail to be moved by such an action. I can't say more but I want to tell you deeply that I appreciate it. I will endeavor to carry out the duties of my office as you expect me to and as I hope I may be able. I want to thank you from the bottom of my heart. (Applause.)

At this time the Chairman of the Tellers has reported to the Secretary the action on the vote on the Constitutional Amendment. (Constitutional Amendment Resolution No. 2.)

Mr. Secretary, will you announce the vote?

SECRETARY GARLAND: Mr. Speaker, the vote on behalf of the Amendment was thirty-eight for; and against, one hundred and forty-five. (Applause.)

SPEAKER ASKEY: That constitutes a two-thirds majority against the Constitutional Amendment and it is not adopted.

The next order of business is nominations for the office of Speaker of the House of Delegates. Do I hear any nominations?

DR. CRANE: I wish to place in nomination the name of Louis A. Alesen for Speaker of the House of Delegates. We all know Dr. Alesen. He needs no further introduction. (Applause.)

SPEAKER ASKEY: Are there further nominations for the office of the Speaker of the House of Delegates?

If I hear no nominations, they will be closed. I hear no nominations. I hereby declare the nominations closed.

The Constitution states the vote must be by ballot. Is there a motion that the Secretary cast a ballot for Dr. Alesen for Speaker of the House of Delegates?

. . . It was moved and seconded that the Secretary cast

a unanimous ballot for Dr. Alesen as Speaker of the House of Delegates; the question was called for, the motion was put to a vote and it was unanimously carried. . . .

SPEAKER ASKEY: Mr. Secretary, will you so cast?

SECRETARY GARLAND: I hereby cast a ballot for Dr. Alesen and he is elected. (Applause.)

SPEAKER ASKEY: Dr. Alesen!

DR. LOUIS A. ALESEN: Gentlemen, thank you. You are going to hear a lot from me next year so I won't say a thing now.

SPEAKER ASKEY: The next order of business is the election of the Vice-Speaker of the House of Delegates.

Are there nominations?

DR. ALVIN G. FOORD (Pasadena): I would like to put in nomination the name of Donald A. Charnock. Doctor Charnock has been in this state for the last forty-seven years. He is a graduate of the University of California. Of course, he wasn't born in this state but we are sort of proud of Dr. Charnock as he has spent his entire medical career in this area of twenty-seven years. He has served on the Council for the last eight years and he has served as a Section Chairman in the California State Medical Association. It gives me a great deal of pleasure to nominate a man who I am sure will bring harmony into our ranks, Dr. Donald A. Charnock.

SPEAKER ASKEY: Are there further nominations?

DR. J. SEVERY HIBBEN (Pasadena): Members of the House of Delegates: We have in Los Angeles a man who has served the medical profession in many capacities for a long time. He began his serious efforts as the first President of the Public Health League of California. That was about fifteen years ago. It was largely through his efforts that it became a state-wide organization of great value. He has been a member of the Committee on Public Policy and Legislation of the California Medical Association for almost the same length of time. He has been a member of the Council of Los Angeles County Medical Association since about 1934. He has served as the Secretary and Treasurer for three years. He is the author of a comprehensive history of the Los Angeles County Medical Association. He was a leader in bringing out the important work of modernizing the Constitution and By-Laws of the Los Angeles County Medical Association some seven or eight years ago, which revisions have made it one of the most leading and democratic county medical associations in this country. He has been a factor in building the Association's group health and accident insurance and he is editor, as you know, of the scientific journal, *Annals of Western Medicine and Surgery.*

It is a pleasure and a privilege for me to place in nomination for the office of Vice-Speaker, Edmund T. Remmen, President of the Los Angeles County Medical Association.

SPEAKER ASKEY: Are there further nominations for the office of Vice-Speaker of the House of Delegates?

DR. DAVE F. DOZIER (Sacramento): I consider it a great privilege to second the nomination of Dr. Donald Charnock. I don't like to think of him as being an old man in the practice of medicine, but I have known Don for almost thirty years, or another year will be thirty years, and during that time he has been one of our finest, soundest men in the practice throughout the state. It is a genuine privilege to second his nomination. (Applause.)

DR. KILGORE: Mr. Speaker, I feel that I ought, in justice to this House, to explain that we, the Native Sons, who were really born in California, will not hold it against Dr. Charnock that he wasn't.

SPEAKER ASKEY: Are there further nominations for the office of Vice-Speaker? If I hear none, the nominations will be closed. I hear no further nominations; they are closed and the nominees before you are Dr. Donald Charnock and Dr. Remmen. The Secretary will please prepare the ballots and the tellers will spread them among you.

I would like to call attention to the fact that each ballot has a number at the top of it. Number two is the number of the next ballot. Number two will be spread among you. Please vote on it for one or the other.

Dr. Royston, will you and your Board of Tellers please pass the ballots out? In the meantime, Dr. Charnock, will you come forward and tell us where you are from?

DR. DONALD A. CHARNOCK: I was born in Vancouver, British Columbia, but I have been here for the last forty-seven years.

SPEAKER ASKEY: Dr. Remmen, do you want to come up here too?

DR. REMMEN: I am a Norwegian from North Dakota.

. . . Voting. . . .

SPEAKER ASKEY: Has everybody voted? If they have, the ballots will be declared closed. The ballots are closed.

The next election is that of our District Councilors. The first election is that of Councilor for the First District.

The Speaker will call attention to the By-Laws by means of which the District Councilors are elected. Each District shall give to the Secretary a written nomination of one or more nominations. In case there is only one nominee, you may then either vote to elect or reject that one nominee. In case there are two or more nominees, you will elect or you will vote on the name of your choice. All elections of officers except as to the Delegates and Alternates to the American Medical Association must be marked majority vote. Therefore, if there are more than two nominees, the man that receives the lowest vote must be dropped and another ballot taken, unless one man has the majority of the votes.

If there are questions in regard to this procedure, your Speaker will answer them.

If not, the First District, consisting of Imperial, Orange, Riverside, San Bernardino and San Diego Counties, Herbert A. Johnston, Anaheim (term expiring).

Mr. Secretary, are there nominations presented to you from this District and, if so, will you come to the Chair and announce them?

SECRETARY GARLAND: There is a quiver of nominations from the First District. The name of Edward Blondin has been submitted by seventy-six of his colleagues from that District. The name of John Ball is submitted by two Delegates from that District. The name of Dr. Cherry is submitted by one Delegate.

Mr. Speaker, I am reminded by the President that Dr. Cherry is already a Councilor.

The name of E. A. Johnston is submitted by one Delegate from that District.

SPEAKER ASKEY: The names of three men, then, are before you: Dr. Johnston, Dr. Blondin, and Dr. Ball. Dr. Cherry is already a Councilor-at-Large, and if he wishes to run for this office of District Councilor, he should resign as Councilor-at-Large.

What is your pleasure, Dr. Cherry? Are there any statements you wish to make?

DR. CHERRY: I don't care to be District Councilor.

SPEAKER ASKEY: Dr. Cherry refuses to run. That leaves only three nominations.

Mr. Secretary, will you again call the names and, if these gentlemen are present, we will ask them to stand.

SECRETARY GARLAND: John Ball. (Applause.)

Edward Blondin. (Applause.)

E. A. Johnston.

SPEAKER ASKEY: Dr. Johnston is ill at the present time and he is not here. You have the three names before you. This will be ballot number three. We must await at this time the report of the Tellers in order for them to spread the ballots for this vote.

Dr. Ward of Reference Committee No. 3 is going to spread before you a mimeographed copy of all the resolutions which were presented and on which that Committee

will report. You may be studying them in the interim and this copy will refresh your mind. If you will proceed with that, Dr. Ward.

In order to save time, we will spread before you the ballot for District Councilor. Ballot number three is the one for the First District Councilor and you will vote for either Dr. Ball, Dr. Blondin, or Dr. Johnston. Will you please put on your ballot the name of your choice, and the Tellers will then take them.

Is it the desire of the House that an additional Board of Tellers should assist?

DR. J. FRANK DOUGHTY (San Joaquin County): I so move.

. . . The motion was seconded, put to a vote and unanimously carried. . . .

SPEAKER ASKEY: Dr. Doughty, you are Chairman of the Second Committee; Dr. Philip J. Cunnane is the second member and Dr. G. Dan Delprat is the third member.

SECRETARY GARLAND: I will now give you the report on the election of the Vice-Speaker.

Charnock—144; Remmen, 40; blank, one. (Applause.)

SPEAKER ASKEY: Dr. Charnock is elected your Vice-Speaker.

Dr. Charnock, will you please come forward?

I present to your House of Delegates your new Vice-Speaker, Dr. Donald Charnock.

DR. DONALD CHARNOCK: I thank you very much.

SPEAKER ASKEY: The next is the election of the Councilor from the Fourth District, Axcel E. Anderson (term expiring).

Are there nominations in your hands from the Fourth District which consists of Calaveras, Fresno, Kings, Madera, Mariposa, Merced, San Joaquin, Stanislaus, Tulare and Tuolumne Counties?

SECRETARY GARLAND: Dr. Doyle has been proposed by one Delegate; we have the name of Dr. George Sanderson proposed by one Delegate and the name of Axcel E. Anderson proposed by one Delegate. Dr. Axcel E. Anderson proposed by one Delegate; the name of Axcel E. Anderson proposed by another Delegate and the name of Axcel E. Anderson proposed by another Delegate.

SPEAKER ASKEY: Are there any further nominations?

A MEMBER: I was requested by Dr. Doyle, who is indisposed, to withdraw his name.

SPEAKER ASKEY: There has been requested the withdrawal of Dr. Doyle's name. Hearing no objection, it is therefore withdrawn.

A MEMBER: Acting for Dr. Sanderson, I have been requested that his name be withdrawn.

SPEAKER ASKEY: The name of Dr. George Sanderson of San Joaquin County has been requested to be withdrawn? Is it the pleasure of the House that it be withdrawn. Hearing no objection, it will be withdrawn. I hear no objection —it is withdrawn and that leaves the name of Dr. Axcel E. Anderson of Fresno.

It is necessary to vote by ballot for the election due to the recession of the name heretofore nominated. Is there a motion that the Secretary cast the ballot?

. . . It was moved, seconded and carried that Secretary cast a ballot for Dr. Axcel E. Anderson. . . .

SPEAKER ASKEY: The Secretary is instructed to cast a ballot for Dr. Axcel E. Anderson.

SECRETARY GARLAND: I hereby cast the ballot.

SPEAKER ASKEY: The nomination of Dr. Anderson has been sustained and he is elected.

The next is the Seventh District. That includes the counties of Alameda and Contra Costa, the term of Lloyd E. Kindall expiring.

Mr. Secretary, are there any regularly nominated from that District?

SECRETARY GARLAND: Mr. Speaker, nominations have been presented for Dr. Lloyd E. Kindall bearing the signature of one Delegate and for Dr. Harold F. Hitchcock, bearing the signature of one Delegate and for Dr. Donald D. Lum bearing the signature of nine Delegates.

SPEAKER ASKEY: You have heard the nominations from this District. We will now have the election and this must be by majority vote. It is understood, on receiving of the votes, unless a majority is obtained, one will have to withdraw and the election then continues.

Mr. Executive Secretary, will you cause through Dr. Royston, Chairman of the Tellers Committee, to have the ballots passed for this election and what number will that be assigned?

MR. JOHN HUNTON: Ballot number four is assigned to this election.

SPEAKER ASKEY: Dr. Royston, will you please spread the ballots?

. . . The ballots were passed to the members of the House of Delegates. . . .

SPEAKER ASKEY: The report of the first ballot which is from the First District is now ready.

Mr. Secretary, will you announce the result of the votes?

SECRETARY GARLAND: Ball, 123; Blondin, 31; Johnston, 14.

SPEAKER ASKEY: Dr. John Ball has been declared elected First District Councilor.

Dr. Ball, you will arise and take a bow. (Applause.)

Has ballot number four been collected? If so, the ballots are hereby declared closed and, Dr. Royston, will you report to the Secretary the accounting?

We come now to the election of the Councilors-at-Large. The procedure of our House of Delegates is that any man who is a member of the California Medical Association in good standing is entitled to be nominated from the floor.

I will now call for nominations for Councilors-at-Large for the place now held by Sidney J. Shipman of San Francisco (term expiring).

DR. G. DAN DELPRAT (San Francisco): I would like to place in nomination —

DR. MOODY (Interrupting): A point of order. Is the Seventh District disposed of yet?

SPEAKER ASKEY: I beg your pardon, sir, the Seventh District has not been disposed of. It is still in the hands of the Tellers. It will be announced as soon as the count is finished.

DR. DELPRAT: I would like to place in nomination the name of Dr. Sidney J. Shipman to succeed himself. (Applause.)

DR. MOORE: It gives me a great deal of pleasure to second the nomination of Dr. Shipman. Even though living in an opposite part of the state, I have known him for a number of years and have had the privilege of working with him on the Chandler Committee for a year during which time I became intimately acquainted with his knowledge of operations, his ability, his integrity and interest in the job he is doing.

SPEAKER ASKEY: Are there any further nominations?

DR. DOUGHTY: I move that the nominations be closed and that the Secretary be instructed to cast the ballot.

. . . The motion was seconded, put to a vote and unanimously carried. . . .

SPEAKER ASKEY: Mr. Secretary, will you so cast?

SECRETARY GARLAND: Mr. Speaker, I hereby cast the ballot.

SPEAKER ASKEY: The ballot has been cast and Dr. Sidney Shipman is elected.

DR. SIDNEY J. SHIPMAN: Mr. Speaker and Members of the House: Not only Dr. Moore, but the whole Chandler Committee worked with me.

SPEAKER ASKEY: The next Councilor to be elected is for the place now held by E. Earl Moody (term expiring).

Dr. Moody!

DR. E. EARL MOODY: After eight years of telling stories

for two hours and showing the pictures of our children and after that length of time, feeling that I have served much of my usefulness to the Council of the California Medical Association and serving your interests, it gives me great pleasure to place a nomination in the name of Dr. Wilbur Bailey of Los Angeles with whom I served on the Council of the Los Angeles County Medical Association for a number of years. That is, until I was boosted and kicked upstairs. I would wish to assure you that the only collar he wears is made by Cluett, Peabody and Company and his collar is an Arrow Collar.

DR. CHARNOCK: Mr. Speaker, I should like to second the nomination of Dr. Bailey.

SPEAKER ASKEY: Are there further nominations?

DR. LAWRENCE L. CRAVEN (Los Angeles): For fifteen or twenty years I have had the privilege of working with one of the wheel horses of this county in helping, first of all, to start the Public Health League. It is a great honor and a great privilege to present to you a wheel horse of this county, a man who is known by all of you and all over the State of California, Dr. Peter Blong.

SPEAKER ASKEY: Dr. Peter Blong has been nominated.

DR. BLONG: Dr. Blong wishes to withdraw his nomination.

SPEAKER ASKEY: Dr. Blong wishes to withdraw his nomination. Does he have the consent of the House? If I hear no objection, it will be allowed. There is no objection and, Dr. Blong, you may withdraw your nomination.

Are there further nominations for the place of Dr. Earl Moody?

If not, the nominations will be closed.

DR. DOUGHTY: I move that the Secretary be instructed to cast the ballot.

. . . The motion was seconded, put to a vote and unanimously carried. . . .

SPEAKER ASKEY: The Secretary will cast the ballot for Dr. Bailey.

SECRETARY GARLAND: Mr. Speaker, I hereby cast the ballot.

SPEAKER ASKEY: Dr. Bailey is elected.

Dr. Bailey, will you stand up? (Applause.)

The next order of business is the election of the Delegates to the American Medical Association. These Delegates are elected for two calendar years. Those elected will start their office January 1, 1948. Terms of Delegates elected at this session of the C.M.A. House for calendar years 1948-1949 will expire on December 31, 1949.

Again, I call your attention to the fact that Delegates for the House of the American Medical Association and their Alternates need only a plurality vote rather than a majority vote.

The first is the term of Robertson Ward, term expiring. Are there nominations?

Dr. Diepenbrock!

DR. A. B. DIEPENBROCK: Mr. Speaker and Members of the House of Delegates: I should like to place in nomination to succeed himself Dr. Robertson Ward of San Francisco.

SPEAKER ASKEY: Are there further nominations? The name of Dr. Ward has been presented to you.

If I hear no further nominations, they are closed. I hear none; they are closed and how will you vote?

DR. DOUGHTY: I move that the Secretary cast the ballot for Dr. Robertson Ward of San Francisco.

. . . The motion was seconded, put to a vote and unanimously carried. . . .

SPEAKER ASKEY: Mr. Secretary, will you so cast?

SECRETARY GARLAND: Mr. Speaker, the ballot is cast.

SPEAKER ASKEY: Dr. Robertson Ward of San Francisco is elected.

Dr. Ward, will you stand? Dr. Ward. (Applause.)

The next is that of Sam J. McClendon, San Diego, term expiring. Are there nominations for this office?

Dr. Ball!

DR. BALL: Mr. Speaker and Members of the House of Delegates: As a Native Son, residing in District Number One, I should like to nominate the favorite son of District Number One, Dr. Sam J. McClendon to succeed himself. (Applause.)

SPEAKER ASKEY: Are there further nominations for this office? If I hear none, the nominations will be closed; I hear none; they are closed.

Dr. Doughty!

DR. DOUGHTY: I move that the Secretary cast the ballot.

. . . The motion was seconded, put to a vote and unanimously carried. . . .

SPEAKER ASKEY: Mr. Secretary, will you so cast?

SECRETARY GARLAND: I hereby cast the ballot.

SPEAKER ASKEY: Dr. Sam J. McClendon is elected to succeed himself.

The next is for the office of Dr. Lowell S. Goin, Los Angeles, term expiring. Are there any nominations for that office?

DR. SAM J. MCCLENDON: Mr. Speaker and Members of the House: This will probably be the last time I shall appear before you to say anything after twenty-one years in the House. I retire tonight, as you well know. However, as one of my last duties and performances before you, it gives me a great deal of pleasure to place in nomination to succeed himself, Dr. Lowell S. Goin of Los Angeles with whom I have shared for many years and I know that he merits your support. (Applause.)

DR. R. STANLEY KNEESHAW: I have been a Member of this House for twenty-seven years. This Lowell Goin has more g-u-t-s than seven of us guys together and I want to tell you fellows that the five Councilors who are from the counties of the north unanimously endorse and support Lowell Goin.

SPEAKER ASKEY: The Speaker wants it understood that any remarks in favor of the nominee are in order and any dissension and the reasons for it are also in order. If Dr. Remmen wishes to speak against the candidacy of Dr. Goin who has been presented or present another nominee, I will be glad to give him the floor at this time.

SPEAKER ASKEY: Dr. Murray!

DR. DWIGHT MURRAY: I would like to say, as an informative thing to this House of Delegates, that last year when it was necessary for the A.M.A. to have someone appear before the Committee on Education and Labor in the Senate at Washington there were three men chosen from A.M.A. to represent the A.M.A. One of them was Dr. Lowell Goin. That testimony that he gave made such an impression that only today I received a telephone call from Washington which had to do with the setting of an appointment and the getting of a person to speak before this Committee. The telephone call was in reference to Dr. Goin and the person calling wanted to know if I wouldn't see if Dr. Goin was sent back before this same Committee again in regard to the Taft Bill or Senate Bill 545. (Applause.)

SPEAKER ASKEY: Are there further nominations for this office? If I hear no further nominations, they will be closed. The nominations are closed. How will you vote?

Dr. Doughty: I move that the Secretary be instructed to cast the ballot.

. . . The motion was seconded, put to a vote and unanimously carried. . . .

Secretary Garland: Mr. Speaker, I hereby cast the ballot.

Speaker Askey: Dr. Goin is elected.

Dr. Goin will you take a bow, please? (Applause.)

The results of the ballot for Councilor of the Seventh District are in the hands of the Secretary. Mr. Secretary, will you please report?

Secretary Garland: Mr. Speaker, there were 171 ballots cast. Lum, 123; Hitchcock, 3; Kindall, 41; blank, 4.

Speaker Askey: Dr. Lum is elected.

Dr. Lum, will you stand please? (Applause.)

The next office to be voted upon is that for the Delegate to the American Medical Association, Dr. John W. Green of Vallejo, term expiring. Are there nominations for this office?

Dr. Dwight Murray: I hate to come here so many times, up here to the microphone, but I could not possibly allow this opportunity to pass without placing in nomination now my old friend, Dr. Green, whom I have known for over thirty years and who was not born in California. Dr. Green was elected to fill my unexpired term and has only been a Delegate for one year, not for one term of his own, but for one year, and he has served in that capacity very ably and very capably. I should like to see him return.

Speaker Askey: Are there further nominations for this office?

Dr. Doughty: I move that the nominations be closed.

. . . The motion was seconded, put to a vote and unanimously carried. . . .

Speaker Askey: The nominations are closed. How will you vote?

Dr. Doughty: I move that the Secretary cast the vote.

. . . The motion was seconded, put to a vote and unanimously carried. . . .

Speaker Askey: The Secretary is instructed to cast the ballot for John W. Green.

Secretary Garland: Mr. Speaker, I hereby cast the ballot.

Speaker Askey: Dr. Green is elected.

Dr. Green, will you stand? (Applause.)

The next is the election of Alternates to the American Medical Association. The reason we are doing that is that the Alternates are elected for the specific office.

We will now elect the Alternate for the Delegates you have just elected. The first is for the term of Anthony B. Diepenbrock of San Francisco who is Alternate to Dr. Robertson Ward. Are there nominees for this office?

Dr. William G. Burkhard (San Francisco): I take great pleasure in nominating Dr. Anthony B. Diepenbrock as Alternate to Robertson Ward.

Speaker Askey: Are there further nominations?

Dr. Doughty: I move that the nominations be closed.

. . . The motion was seconded, put to a vote and it was unanimously carried. . . .

Speaker Askey: The nominations are closed.

Dr. Doughty, do you have a motion to make?

Dr. Doughty: I move that the Secretary cast a ballot for Dr. Diepenbrock.

. . . The motion was seconded, put to a vote and it was unanimously carried. . . .

Speaker Askey: The motion is carried and the Secretary is instructed to cast the ballot.

Secretary Garland: Mr. Speaker, I so cast.

Speaker Askey: Dr. Diepenbrock is elected.

Dr. Diepenbrock, will you please stand? (Applause.)

The next office is that of Alternate to the American Medical Association, Alternate to Dr. Sam J. McClendon. Dr. Bon O. Adams of Riverside, term expiring. Are there nominations for this office?

Dr. Walter S. Cherry: I would like to nominate Dr. Bon O. Adams.

Speaker Askey: Are there further nominations? If not, they will be closed. They are closed.

Dr. Doughty: I move that the Secretary be instructed to cast the ballot.

. . . The motion was seconded, put to a vote and unanimously carried. . . .

Speaker Askey: The Secretary is instructed to cast the ballot.

Secretary Garland: I hereby so cast.

Speaker Askey: Dr. Bon O. Adams is elected.

Dr. Adams, will you stand?

. . . Dr. Adams was not present. . . .

Speaker Askey: The next office is for Alternate to Dr. Lowell S. Goin, Louis J. Regan, term expiring. Are there any nominations?

Dr. Hendrickson: I wish to nominate Dr. William E. Costolow as Alternate to Dr. Lowell S. Goin. I have known Dr. Costolow since 1930. He is now Chairman of the Executive Committee of the Los Angeles Branch of the American Cancer Society. He is Past President of the American Radium Society and he was a Captain in the Naval Service, having served eighteen months in the South Pacific.

Speaker Askey: The name of Dr. Costolow is before you. Are there further nominations for this office?

Dr. Quinn!

Dr. William F. Quinn (Los Angeles): I would like to nominate Dr. Eugene F. Hoffman. I don't know where he was born but, as far back as I can remember, he has been active in working for doctors in Los Angeles County. Whenever we appoint a committee we put Gene on because we know we won't have to do any work thereafter. He has served faithfully in the early days of the California Physicians' Service to the detriment of his own practice. I think he would be an excellent man.

Speaker Askey: The name of Dr. Eugene F. Hoffman is presented.

Dr. Costolow: I would like to withdraw.

Speaker Askey: Dr. Costolow requests to withdraw. What is the wish of the House—is it to grant that request?

. . . It was moved, seconded and carried that the request be granted. . . .

Speaker Askey: Dr. Costolow's request to withdraw is granted.

You now have before you the nomination of Dr. Hoffman. Are there further nominations?

Dr. Doughty: I move that the nominations be closed.

. . . The motion was seconded, put to a vote and it was unanimously carried. . . .

Speaker Askey: They are closed.

Dr. Doughty: I move that the Secretary cast a ballot for Dr. Eugene F. Hoffman.

. . . The motion was seconded, put to a vote and unanimously carried. . . .

Speaker Askey: Secretary Garland, you are so instructed.

Secretary Garland: I hereby cast a ballot for Dr. Eugene F. Hoffman.

Speaker Askey: The next is the office of Dr. H. Randall Madeley of Vallejo, term expiring. Are there nominations?

Dr. Carroll Andrews (Sonoma County): At a caucus of the Delegates from the Ninth Councilor District, it was decided to place in nomination the name of Dr. William N. Makaroff from Guerneville.

As to his qualifications, he was Vice-President of the Sonoma County Medical Society in 1943-1945 and President of the Sonoma County Medical Society, 1944-1945. He attended the Special Meeting of the House of Delegates in Los Angeles in 1945 and participated in their heroic work. He was graduated from the University of Minnesota in 1933 and began practice in California in 1939. He is very active in the County Society. It was through his efforts that a revision of the Constitution and By-Laws of that County Society was accomplished.

He has been a Delegate to the California Medical Association in 1943, 1944 and 1945. He has been an Alternate the last two years.

The reason I take the opportunity of explaining all of that is that the Ninth District is a relatively little-town district.

In closing, I might say that in addition to all of his other qualifications, he has gotten his wife to work. He has succeeded in getting her to be editor of the publication for the Woman's Auxiliary, the *Courier*.

It is a great pleasure for me to place in nomination Dr. William N. Makaroff as Alternate to Dr. John W. Green.

Speaker Askey: Are there further nominations for this office?

Dr. Doughty: I move that the nominations be closed and that the Secretary cast a ballot for Dr. Makaroff.

. . . The motion was seconded, put to a vote and unanimously carried. . . .

Speaker Askey: The Secretary is so instructed.

Secretary Garland: I hereby cast a ballot. The ballot is cast and Dr. Makaroff is elected.

Speaker Askey: This may seem like horse play to you but the Constitution says that the balloting must be had and that is why we are doing it.

The next is the election of the new Delegate to the American Medical Association for a term which will expire December 31, 1948. The reason for the new Delegate is this: The numerical ratio of the members of the California Medical Association is now such that we are entitled to one more Delegate which makes the total Delegation to the American Medical Association from the State of California nine.

Dr. Lewis A. Alesen was elected by the Council to fill that place until the meeting of the House of Delegates today and at this time the election will occur. Are there any nominations for the new Delegate.

Dr. Moody: It gives me great pleasure to place in nomination for this short office a very long-time friend and a man in Los Angeles County, Dr. Ralph B. Eusden of Long Beach. He wears a white, clean collar and it is not made of celluloid. It won't even explode or catch on fire.

Speaker Askey: The name of Dr. Eusden is presented. Are there further nominations? If not, they will be declared closed.

Dr. Doughty: I move that the Secretary cast the ballot.

. . . The motion was seconded, put to a vote and unanimously carried. . . .

Speaker Askey: Mr. Secretary, will you so cast?

Secretary Garland: Mr. Speaker, I hereby cast the ballot.

Speaker Askey: The ballot is cast and Dr. Eusden is declared elected.

Dr. Ralph B. Eusden, will you stand up, please? (Applause.)

The next is the election of an Alternate to the newly-elected Delegate to the A.M.A. This will be an Alternate to Dr. Eusden.

Dr. Mary E. Mathes (San Francisco): I would like to place in nomination the name of Dr. Elizabeth Mason Hohl of Los Angeles. As far as I know, there has never been a woman Delegate or Alternate to the American Medical Association from this district. There have been some from the East, but not from out here. That is not the only reason that I place in nomination the name of Dr. Hohl. She is a capable person and she has been associated with medical society affairs for some time. I believe she would fill the office creditably. (Applause.)

Speaker Askey: You have heard the nomination of Dr. Hohl. Do I hear a motion that the nominations be closed?

Dr. Hoffman: I, also, would like to second the nomination of Dr. Hohl.

Speaker Askey: Are there further nominations? If not, they will be declared closed—they are closed.

Dr. Doughty: I move that the Secretary cast the ballot for Dr. Hohl.

. . . The motion was seconded, put to a vote and it was unanimously carried. . . .

Speaker Askey: Mr. Secretary, will you so cast?

Secretary Garland: I hereby cast the ballot.

Speaker Askey: The ballot is cast and Dr. Hohl is elected.

Will you please stand, Dr. Hohl? (Applause.)

I think that anyone who knows Dr. Hohl knows that she is really for Medicine and will be a great credit to our organization.

At this time we will have some announcements by the Secretary.

. . . The Vice-Speaker, Lewis A. Alesen, assumed the Chair. . . .

Vice-Speaker Alesen: Dr. Cline has an announcement to make.

Dr. Cline: It is incumbent upon the incoming President to appoint the members to the Cancer Commission and designate the officers of the Cancer Commission. I, therefore submit the following names:

Dr. Eric Larson of Los Angeles; Dr. Homer Woolsey of Woodland and Dr. Harry Peters of Oakland.

I designate as Chairman of the Commission Dr. Lyell C. Kinney of San Diego; Secretary, Dr. David A. Wood of San Francisco.

Vice-Speaker Alesen: You have heard the nominations of the Committee on the Cancer Commission. What do you wish to do with them?

Dr. Diepenbrock: I move that the nominations be approved.

. . . The motion was seconded, put to a vote and unanimously carried. . . .

Vice-Speaker Alesen: It is so ordered.

In the case of appointments it is not essential for the Secretary to cast a ballot.

Dr. Cline: It is also incumbent upon the President to appoint an Advisory Committee to the Cancer Commission and I submit the following names:

Dr. George Sharp; Dr. H. Glenn Bell; Dr. Robert Stone; Dr. Clarence Berne; Dr. Carl Moore of Bakersfield; Dr. Chapman of Stockton; Dr. Gertrude Moore; Dr. Robert A. Scarborough and Dr. Carleton Mattewson, Jr.

Vice-Speaker Alesen: Does anyone care to move that they be accepted?

DR. DOUGHTY: I move that the names be accepted as members of the Advisory Committee.

. . . The motion was seconded, put to a vote and unanimously carried. . . .

VICE-SPEAKER ALESEN: It is so ordered.

Are they any announcements by the Secretary?

SECRETARY GARLAND: No, sir.

VICE-SPEAKER ALESEN: The next order of business is the report of the Reference Committee on the reports of Officers and Standing Committees, Dr. L. J. Regan, Chairman.

Report of Reference Committee No. 1

DR. L. J. REGAN, *Chairman*

Members of the House: Your Committee has reviewed the reports of Officers, of Councilors, of the Standing Committees, of the Legal Department, of the Editorial Board, and of the Editor of CALIFORNIA MEDICINE.

These reports are published in the Annual Reports Bulletin of which each member of the House of Delegates has a copy. In the interest of time, unless there is a request, these reports will not be read.

Your Committee recommends the approval of these reports.

I move the adoption of this portion of the report.

DR. LARSON: I will second the motion.

VICE-SPEAKER ALESEN: It has been moved and seconded that this portion of the report be adopted. Is there any discussion?

. . . There being no discussion, the motion was put to a vote and it was unanimously carried. . . .

DR. REGAN: The Committee has also reviewed the Annual Reports of County Medical Society Secretaries. These reports are printed in the Annual Reports Bulletin which is before you. Your Committee recommends the approval of these reports.

I move the adoption of this portion of the report.

DR. LARSON: I second the motion.

VICE-SPEAKER ALESEN: Is there any discussion?

. . . There being no discussion, the motion was put to a vote and it was unanimously carried. . . .

DR. REGAN: I move the adoption of the report as a whole.

. . . The motion was seconded. . . .

VICE-SPEAKER ALESEN: It has been moved and seconded that the report as a whole be adopted. Is there any discussion?

. . . There being no discussion, the motion was put to a vote and it was unanimously carried. . . .

VICE-SPEAKER ALESEN: It is so ordered.

The next is the report of the Reference Committee on the report of the Council and the reports of the Secretary-Treasurer and Executive Secretary. That is Reference Committee No. 2, Dr. Chester L. Cooley of San Francisco, Chairman.

Report of Reference Committee No. 2

DR. CHESTER L. COOLEY, *Chairman*

Members of the House of Delegates: Your Committee has carefully reviewed the reports of the Council, the Secretary-Treasurer and the Executive Secretary.

REPORT OF THE COUNCIL: The Committee recommends acceptance of the report with Paragraph No. 3 of the Addendum deleted through action of the House of Delegates at its first session and the Committee wishes to commend the Council for the excellent manner in which it has handled the many difficult problems which have confronted it in the past year.

Mr. Speaker, I move the adoption of this section of the report.

. . . The motion was seconded. . . .

VICE-SPEAKER ALESEN: The motion is on the adoption of this section of the report. Is there any discussion?

. . . There being no discussion, the motion was put to a vote and it was unanimously carried. . . .

VICE-SPEAKER ALESEN: It is so ordered.

DR. COOLEY:

REPORT OF THE SECRETARY: The Committee recommends acceptance of this report. The Committee endorses the recommendation that the office of Constitutional Medical Secretary become a permanent office of this Association.

Mr. Speaker, I move the adoption of this section of the report.

. . . The motion was seconded. . . .

VICE-SPEAKER ALESEN: It has been moved and seconded that this section of the report be adopted. Is there any discussion?

. . . There being no discussion, the motion was put to a vote and it was unanimously carried.

VICE-SPEAKER ALESEN: It is so ordered.

DR. COOLEY:

REPORT OF THE TREASURER: The report of the Treasurer has been carefully reviewed and the Committee recommends its acceptance.

Mr. Speaker, I move the adoption of this section of the report.

. . . The motion was seconded. . . .

VICE-SPEAKER ALESEN: It has been moved and seconded that we adopt this section of the report. Is there any discussion? . . . There being no discussion, the motion was put to a vote and it was unanimously carried.

VICE-SPEAKER ALESEN: It is so ordered.

REPORT OF THE EXECUTIVE SECRETARY: The Committee recommends that this report be accepted. The recommendation of this Committee would be incomplete without an expression of gratitude from the California Medical Association to the Executive Secretary for the outstanding services he has rendered to this Association in the past and is continuing to render.

Mr. Speaker, I move the adoption of this section of the report.

DR. SHIPMAN: I will second the motion.

VICE-SPEAKER ALESEN: It has been moved and seconded that this portion of the report be adopted. Is there any discussion?

. . . There being no discussion, the motion was put to a vote and it was unanimously carried. . . .

DR. COOLEY: Mr. Speaker, I move the adoption of the report as a whole.

. . . The motion was seconded, put to a vote and unanimously carried. . . .

VICE-SPEAKER ALESEN: The next order of business is the report of Reference Committee No. 3, Dr. A. E. Moore of San Diego, Chairman.

Report of Reference Committee No. 3

DR. A. E. MOORE, *Chairman*

On behalf of the Committee, I would like to express, first, our appreciation for the willingness on the part of the Secretary's staff in preparing these documents. I also would personally like to thank the other two members of the Committee, Dr. Hoffman and Dr. Ward, for their most able work and cooperation.

Your Reference Committee No. 3, Doctor Eugene Hoffman of Los Angeles, Doctor Robertson Ward of San Francisco, and I, have met and have considered all testimony presented regarding the various submitted Constitutional Amendments, By-Laws Amendments and resolutions. We have consulted with numerous Delegates, several Council members, officers of the C.M.A., members of the Board of Trustees of C.P.S., representatives of the Legislative Committee, and legal counsel. In addition we have reviewed the proposed budget for 1948 and the expenditures

for 1947. Reference Committee No. 3 respectfully submits the following report:

Mr. Speaker, I would like to waive the reading of the resolutions.

VICE-SPEAKER ALESEN: The Speaker will rule, unless someone excepts, that the Chairman of the Committee will not read the entire resolutions unless someone so wishes it.

DR. MOORE:

Resolution No. 1:

The Committee has amended this resolution as follows:

Beginning with the third paragraph "And, Further Be It

Resolved, That the California Medical Association through its House of Delegates directs its Council to inform the superintendent of every approved hospital in California that the California Medical Association endorses the establishment of a section on General Practice as urged by the American Medical Association through its House of Delegates."

And the last paragraph amended to read as follows: "And, Further Be It

"*Resolved*, That the California Medical Association through its House of Delegates directs the Council to suggest to the superintendent of every approved hospital in California that he recommend to the advisory staff the early formation of a Section on General Practice."

You have two papers before you. One is the resolution as originally introduced and the second is the Committee's report. I refer now to the original resolution, the first two paragraphs of which are left intact. The Committee's changes are supplanting the second two paragraphs.

"WHEREAS, The American Medical Association, through its House of Delegates, has urged that every approved hospital in the United States establish on its staff a Section on General Practice; Therefore, Be It

"*Resolved*, That the California Medical Association, through its House of Delegates, directs its Council to communicate the above action of the American Medical Association to the Superintendent of every approved hospital in California,"

Then we come to the amended portions beginning with the third paragraph.

"And, Further Be It

"*Resolved*, That the California Medical Association through its House of Delegates directs its Council to inform the superintendent of every approved hospital in California that the California Medical Association endorses the establishment of a Section on General Practice as urged by the American Medical Association through its House of Delegates.

"And, Further Be It

"*Resolved*, That the California Medical Association through its House of Delegates directs the Council to suggest to the superintendent of every approved hospital in California that he recommend to the advisory staff the early formation of a Section on General Practice."

The Committee recommends the adoption of this resolution as amended.

Mr. Speaker, I move the adoption of this section of the report.

. . . The motion was seconded. . . .

VICE-SPEAKER ALESEN: It has been moved and seconded that the Committee's recommendation on Resolution No. 1 as amended be adopted. Is there any discussion?

DR. SHEPHARD: I would like to have a little clarification of that. Just what does it entail; what do you mean, "A Section on General Practice" in hospitals?

VICE-SPEAKER ALESEN: Dr. Moore, will you answer that?

DR. MOORE: I think, Dr. Shephard, that we normally consider the backbone of the practice of medicine to be the general practitioner. As I understand this question, there has been a trend on the part of some hospitals to exclude the general practitioner in favor of specialists. The general practitioner has spoken for his rights and last year, before this House of Delegates, had created on his behalf a section on general practice.

This resolution, as your Committee interprets it, aims to extend this decision of our House of Delegates out into the general practice of medicine.

Does that answer your question?

DR. SHEPHARD: No, it doesn't.

I don't know of any of the hospitals having a Section on General Practice. We do not have any in our hospitals. They are more or less opposed to general practitioners working there.

What does this entail? That is the reason I am asking this question.

The reason I brought up this question is that as soon as the Delegates of Santa Clara County get back to report on the business that has been transacted at the California Medical Association, the first question is going to be, "Just what do you mean by establishing a Section on General Practice in the hospitals?" I would like to know what we are supposed to do? How are we going to do it and what is it going to entail and so forth?

DR. MULFINGER: As I understand the intention of that resolution it was simply that in those hospitals that are departmentalized, it creates a Department of General Practice and they will have a man sitting in the Executive Committee who represents that Department just as well as the Department of Surgery or Internes or Ophthalmology, Urology or any of the other specialties with possibly equal rank, and in that way he can represent the general practice group—that is, in that hospital on the Executive Committee. Because so many hospitals are departmentalized, it frequently leaves out of consideration the general practitioners in the hospital and I believe that the intent of that resolution was to change that situation.

VICE-SPEAKER ALESEN: Is there further discussion or clarification?

DR. ROYSTON: There has developed in the metropolitan hospitals a condition which is very difficult for men doing general practice. Largely we are led to understand that in case the Executive Staff of the hospital wishes to push a man doing general practice to the periphery and finally out of the door, it can do it, and we have been given to understand by directives coming to the hospital from bureaus in Chicago that that can very likely be the case. They have told the hospital that they will not be recognized for internship or residency or whatever it may be if they allow anyone doing general practice to have any position on their staff.

It aims to get around this particular difficulty. The superintendents of the large metropolitan hospitals would like to group the men together doing general practice in a General Practice Staff. In that way they could have liaison contact with the other sections of the staff, whether it is internal medicine, pediatrics, or whatever it might be. If the present condition of affairs in the metropolitan hospitals is allowed to continue without some action being taken, the men doing general practice are surely going to be driven out of all the metropolitan hospitals. The result will be that more and more of the men doing general practice are going to go to the smaller hospitals. The result will be the lowering of the grade of work which is put out by these men. There could be no other protection for them.

When a man has been doing a certain procedure for years and then suddenly finds he cannot go into a hospital and set a collar fracture and he can no longer go into a hospital and take out tonsils or open a belly because he is diagnosing appendicitis, he is going to make his living by going to some other places where he can do these things

unrestricted, and if he does these things too unrestricted too much, sometime, somewhere, the patient is going to suffer.

That is why the General Practice Group has felt that it would be better if in all metropolitan hospitals there could be established a section on general practice where a man who elects to do general practice could be admitted to the hospital and allowed to do his work, as it is done, for instance, in Oakland; and when that man continues to do good work he is allowed free access to the hospital. When it is found—if and when it is found—that what he is doing is questionable, he is put off the staff. That is the plan which is followed in Oakland. In Los Angeles that is not the plan. In San Diego that is not the plan.

It seems rather a pity that a well-trained man, because he elects to do general practice and has done that for many years, finds himself in his hospital unable to do procedures that the osteopaths are allowed to do elsewhere, and that is why the General Practice Group feels general practitioners would be better able to serve their patients if they had this general practice staff.

We did put in the resolution originally a rider about California Physicians' Service. If a man cannot take California Physicians' Service patients into the hospitals to treat them, he is going to quit doing California Physicians' Service work, and it has been said already that the general practice group probably is the backbone of medicine. The general practitioners do the ordinary spade work of the practice of medicine.

If this General Practice Section can be established in the metropolitan hospitals it will have a tendency to uplift the general practice of medicine instead of pushing it downward.

Vice-Speaker Alesen: Does anyone else desire to address the House in his capacity as a member of the House of Delegates?

Dr. Vincent Askey: I am a surgeon doing nothing but surgery. It was my privilege to introduce the resolution referred to for the American Medical Association at the last meeting in Chicago. This resolution as amended is practically the same as was adopted by the House of Delegates of the American Medical Association unanimously. If you will read your California Medicine of April, on page 254, there is an editorial which explains, I believe, this whole thing.

I believe in order to clarify this a little bit, I should read that, in case some of you didn't see it. I won't read it all but just the gist of it.

"The use of hospitals as a place for the practice of Specialists alone as a relatively recent development. The tendency began in notable efforts instituted by the American Medical Association and later brought to fruition by the admirable work of the American College of Surgeons to raise hospital standards. From the totally unorganized, unstandardized jumble of good and bad hospital facilities, has come our present-day American Hospital System. The purpose of the American Medical Association and the American College of Surgeons has not been to eliminate capable doctors from staffs nor to concentrate the practice of medicine in the hands of the few. The fact that such a development seems to be arising is rather the fault of administration and a failure to analyze and direct the hospital system.

"The purpose of the certification Boards of Specialists has been stated admirably by the American Board of Surgeons in a resolution passed by that Board December 14, 1946. Among other things this resolution states: 'The American Board of Surgery is not concerned with measures that might be against special privileges of recognition or its certificants in the practice of surgery. It is neither the intent nor has it been the purpose of the Board to define requirements for membership on the staff of hospitals. The Board specifically disclaims interest in or recognition of differential emoluments that may be based on certification.'

"This is a clear statement and is unassailable. However, in the book 'The American Hospital'—1946 edition, page 155, the author. Dr. Corwin (Ph.D.) states 'In the future there will be no excuse to make a major hospital staff appointment from among any except those who have made the standards of our respective Specialty Boards.'

"Many hospitals have turned lately toward Dr. Corwin's concept of staff appointments so that at present it is practically hopeless for a General Practitioner to apply for membership on a major hospital staff, at least in the larger cities. These hospitals explain this attitude by the statement that they have not enough beds to supply the demands of the men already on the staffs (and that is absolutely true). Also they have stated that they could not allow any separate Specialists or Diplomats of the Specialty Boards as members of the staffs or heads of department, else they would lose their approval as a training hospital for residents. By unanimous vote of the House of Delegates of the American Medical Association, on December 10, 1946, at the Chicago Meeting, it settled this aspect of the question by adopting the resolution reading as follows:

"'*Resolved*, That hospitals should be encouraged to establish General Practitioner Service. Appointments to a General Practice Section shall be made by the hospital authorities on the merit and training of the physician. Such a General Practice Section shall not per se prevent approval of the hospital for the training of the internes and Residents. The criterion of whether the physician may be a member of a hospital staff should not be dependent upon certification by the various Specialty Boards or member in Special Societies.'

"Despite the specific disclaimer by the American Board of Surgery of its interest in any recognition of differential emoluments based upon certification, various hospitals and notably government bureaus (for instance, the Veterans' Administration) have added twenty-five per cent more pay or differential in fees to those who are certified. This definitely is opposed to the objectives of the Board and inevitably caused unrest and apprehension among other men who see in this action (rightly or wrongly) a plan to concentrate all hospital practice in the hands of the few."

I am going to skip a little bit.

"We are now in battle again in our Legislature fighting enactment of bills under the guise of hospitalization insurance which would destroy the proper practice of medicine and would perpetrate a fraud on the public. The greatest weapon against the enactment of these compulsory health insurance schemes has been the development by Medicine of voluntary pre-payment plans to finance the cost of medical care and hospitalization. These plans have been supported by the general practice of medicine. Those few doctors who have obstructed or at most given luke warm participation to those plans, have been in the main specialists. Under the contracts of the voluntary plans such as California Physicians' Service, and others, practically all the conditions covered by the policies consist of surgery or other procedures listed under specialty classifications. If the General Practitioner is not admitted to hospital practice to care for those procedures simply because he is not a specialist rather than upon the basis of his ability to perform that type of service, it follows that he cannot long support these voluntary medical service plans. For him not to support these plans would be disastrous as it would then be relatively simple for a disappointed public to succumb to the false promises and blandishments of politically ambitious schemers who promise Utopia under the guise of socialized medicine."

I am going to skip.

"It was evidently many of these considerations that prompted the House of Delegates of the American Medical Association to pass the resolution urging the establishment of General Practitioner Sections in all hospitals and to point out that the ability of a doctor is the governing factor for good service rather than membership in any specialist society.

"It is imperative, of course, to restrict by proper consultation and rules, the performance of any medical or surgical procedure to those who have proved their capabilities."

Skip again.

"The need for specialism is self-evident. The worth of the specialist and his use of hospital facilities for the benefit of the patients need no apologia.

"In addition, it would seem that the General Practitioner is well within his rights to ask—as the welfare of his patients demands—that hospitals heed at once the dictum of the House of Delegates of the American Medical Association and take steps to rectify a trend or a policy of action that is so fraught with danger, injustice and lack of wisdom."

I believe that explains your situation.

VICE-SPEAKER ALESEN: May I ask, as a member of the House of Delegates, to correct one of Dr. Royston's statements. He said that we had no General Practice Section. I believe he is in error as we are rather proud of a General Practice Section we have in one of our larger hospitals. It has worked out very well.

Is there any further discussion on the motion?

. . . There being no further discussion, the motion was put to a vote and it was carried unanimously. . . .

VICE-SPEAKER ALESEN: Proceed, Dr. Moore.

DR. MOORE:

Resolution No. 2:

The Committee feels that it would be presumptious for the C.M.A. to direct the internal policies of staff appointments as this is a function of the Hospital Advisory Staff. The Committee recommends that this resolution be not adopted.

Mr. Speaker, I move that this section of the Committee's report be adopted.

. . . The motion was seconded. . . .

VICE-SPEAKER ALESEN: Is there any discussion?

When you adopt the Committee's report or recommendation, of course, you reject the original resolution.

. . . There being no discussion, the question was called for, the motion was put to a vote and it was unanimously carried. . . .

VICE-SPEAKER ALESEN: It is so ordered.

DR. MOORE:

Resolutions No. 3 and No. 26:

Your Committee would like to consider these resolutions jointly as they both are directed toward the abolition of paid radio time. Your Committee would like to call your attention to the fact that there are two types of radio programs. The first, a type of public education and interest which is usually co-sponsored by a radio station and supported by donated time. While this type of program is desirable and should be used whenever practicable, it does not serve the purposes of public education on any subjects that may be controversial.

The second type of program, because of its controversial nature, is considered commercial by broadcasting companies. Radio time for commercial programs must be purchased. We therefore recommend that these resolutions be not adopted.

Mr. Speaker, I move the adoption of this section of the report.

. . . The motion was seconded. . . .

VICE-SPEAKER ALESEN: Is there any discussion?

. . . There being no discussion, the motion was put to a vote and it was unanimously carried. . . .

VICE-SPEAKER ALESEN: When you approve the Committee's report, of course, you are rejecting Resolutions No. 3 and No. 26. You understand that? The Committee's report is adopted.

DR. MOORE:

Resolution No. 4:

As the Constitution and By-Laws provide for the autonomous control of county society membership by the component county societies, your Committee approves the deletion of a mandatory six months waiting period as recommended in this By-Law Amendment.

The Committee moves that this By-Law be adopted.

I move the adoption of this section of the report.

DR. LAWSON: I will second the motion.

VICE-SPEAKER ALESEN: How do you wish to vote on this —by acclamation or by ballot?

. . . There were cries of "acclamation". . . .

VICE-SPEAKER ALESEN: Is there any discussion?

. . . There being no discussion, the motion was put to a vote and it was carried, there being one "no" vote. . . .

VICE-SPEAKER ALESEN: It is carried by the necessary two-thirds vote.

DR. MOORE:

Resolution No. 5:

The Committee recommends that this resolution be adopted.

Mr. Speaker, I move the adoption of this section of the report.

. . . The motion was seconded. . . .

VICE-SPEAKER ALESEN: Is there any discussion?

DR. DOUGHTY: In order to conserve the funds of the Association, I am not in favor of this directory. I see that it does no good. It is just a duplication for this information is available in the State Directory so I think we ought to conserve our funds.

VICE-SPEAKER ALESEN: Is there further discussion upon the recommendation of the Committee, that is, that the Directory be published by the Association? Are you ready for the question?

. . . There being no further discussion, the motion was put to a vote and the motion was lost. . . .

VICE-SPEAKER ALESEN: The motion is lost.

DR. MOORE:

Resolution No. 6:

The Committee recommends the adoption of this resolution.

Mr. Speaker, I move the adoption of this section of the report.

. . . The motion was seconded. . . .

VICE-SPEAKER ALESEN: Is there any discussion? This is concerning the prizes for scientific work.

. . . There being no discussion, the motion was put to a vote and it was carried. . . .

VICE-SPEAKER ALESEN: It is so ordered.

DR. MOORE:

Resolution No. 7:

The Committee has revised the wording of this resolution without changing the intent, altering only the last paragraph to read:

"Be It

"*Resolved*, That it be recommended to the Scientific Program Committee that a place be made on the annual program for a member or a guest speaker to discuss a subject relating to medical economics."

The Committee recommends the adoption of this resolution.

On page 4 of the published resolutions, we find Resolution No. 7, the last paragraph of which has been changed.

Resolution No. 7 would now read:

"WHEREAS, The present policy of the C.M.A.-Scientific Program Committee has been to restrict papers and discussion to purely scientific subjects; and

"WHEREAS, The medical economic and medical political problems confronting organized medicine in both local, state, nation-wide levels is requiring increasing attention, research and study by physicians individually and collectively; and

"WHEREAS, Subjects concerning these matters are frequently only briefly presented in Committee, Council, or House of Delegates meetings where time is not sufficiently available nor the general convention fully represented or available; Be It

"*Resolved*, That it be recommended to the Scientific Program Committee that a place be made on the annual program for a member or a guest speaker to discuss a subject relating to medical economics."

Mr. Speaker, I move that this section of the Committee's report be adopted.

DR. LAWSON: I will second the motion.

VICE-SPEAKER ALESEN: Is there any discussion?

. . . There being no discussion, the motion was put to a vote and it was carried. . . .

VICE-SPEAKER ALESEN: It is so ordered.

DR. MOORE:

Resolution No. 8:

The Committee has slightly amended this resolution to read, beginning in the last paragraph:

"Be It Therefore

"*Resolved*, That the Council of the California Medical Association take such action as it deems advisable to have the state laws so amended as to permit free choice of physician in the practice of industrial medicine in California."

On page 4 we find Resolution No. 8.

"WHEREAS, The Medical Profession is again facing the threat of Socialized Medicine; and

"WHEREAS, The C.M.A. has consistently maintained that the patient-doctor relationship should be maintained at all cost, and

"WHEREAS, The State Compensation laws as at present constituted permit the interference of a third party in respect to the selection of a physician, a referral to a specialist, or the type of treatment rendered, and

"WHEREAS, The said State Compensation laws do not permit the unhampered selection of a physician by a patient, and

"WHEREAS, The continued sufferance of the foregoing places a grave doubt as to the sincerity of the stand of the C.M.A. relative to the patient-doctor relationship; Be It Therefore

"*Resolved*, That the Council of the California Medical Association take such action as it deems advisable to have the state laws so amended as to permit free choice of physician in the practice of industrial medicine in California."

The Committee recommends the adoption of this amended resolution.

Mr. Speaker, I move that that section of the Committee's report be adopted.

DR. LAWSON: I will second the motion.

VICE-SPEAKER ALESEN: Is there any discussion?

. . . There being no discussion, the motion was put to vote and it was unanimously carried. . . .

DR. MOORE:

Resolution No. 9:

The Committee recommends the adoption of this resolution.

Mr. Speaker, I move that this section of the Committee's report be adopted.

. . . The motion was seconded, and, there being no discussion, the motion was put to a vote and it was unanimously carried. . . .

DR. MOORE:

Resolution No. 10:

The Committee recommends the adoption of this resolution.

Mr. Speaker, I move that this section of the Committee's report be adopted.

. . . The motion was seconded, and, there being no discussion, the motion was put to a vote and it was unanimously carried. . . .

VICE-SPEAKER ALESEN: It is so ordered.

DR. MOORE:

Resolution No. 11:

The Committee recommends that this resolution he not adopted.

Mr. Speaker, I move that section of the Committee's report be adopted.

VICE-SPEAKER ALESEN: If you approve the Committee's report you reject the resolution.

. . . The motion was seconded, put to a vote and carried. . . .

VICE-SPEAKER ALESEN: The "ayes" have it and the Committee's report is approved.

DR. MOORE:

Resolution No. 12:

Your Committee, in reviewing this resolution, feels that fulfillment of its provisions will require a Constitutional Amendment. Such a proposed amendment has been drawn up with approval of Doctor Bryant Simpson who sponsored this resolution. With the permission of the Speaker, I would like to present this proposed Constitutional Amendment for consideration.

Amendment to Article IV, Section 1 of the Constitution of the California Medical Association.

Resolved, That Article IV, Section 1 of the Constitution of this Association, California Medical Association, is hereby amended by adding a new subdivision to read as follows:

(f) Additional Classes of Membership:

The House of Delegates may, from time to time, establish special and limited classes of membership in this Association for internes, junior and senior residents, or house officers, practicing in hospitals in this state. In establishing such special membership for internes, junior and senior residents, or house officers, the House of Delegates may determine the qualifications, duration and privileges of such membership. Unless the House of Delegates determines to the contrary, such special members shall not pay dues.

The House of Delegates may also from time to time provide for affiliation with the California Medical Association, on an affiliate basis, of undergraduate medical students attending medical schools in this state.

Membership obtained under this subdivision (f) shall not carry with it the right to vote or hold office.

VICE-SPEAKER ALESEN: This is a Constitutional Amendment. It will lie on the table for one year.

DR. MOORE: I think it was not understood on Wednesday that this should be a Constitutional Amendment. It was presented as a resolution. I trust that after its introduction it may start lying on the table tonight.

VICE-SPEAKER ALESEN: That is entirely correct. Any member or group of members may introduce resolutions.

DR. MOORE: A Constitutional Amendment?

VICE-SPEAKER ALESEN: Yes, that is correct.

DR. MOORE:

Resolution No. 13:

Evidence and testimony presented by the Legislative Committee have demonstrated the continued need for sup-

port of the United Public Health League at this time. The Committee recommends that this resolution be not adopted.

Mr. Speaker, I move that section of the Committee's report be adopted.

. . . The motion was seconded, the question was called for and the motion was put to a vote and it was unanimously carried. . . .

VICE-SPEAKER ALESEN: It is carried and it is so ordered.

DR. MOORE:

Resolutions No. 14 and 19:

The Committee would like to consider this resolution jointly with Resolution No. 19, which has the same intent, and submit the following substitute resolution:

WHEREAS, There is a fundamental need for obtaining accurate information on the economic relationship between physicians and patients, and

WHEREAS, This will require research into a previously unexplored field, and

WHEREAS, It is deemed desirable and in the best interest of the medical profession and the public that Bureaus of Medical Economics be established in County Societies as soon as such may be done properly and efficiently; Now, Therefore Be It

Resolved, That the House of Delegates of the C.M.A. order and direct the Council of the C.M.A. to request the Standing Committee on Medical Economics, with the assistance of the Advisory Planning Committee, to survey the medical economic relations between patients and individual physicians of California and to aid and advise county associations, And, Be It Further

Resolved, That the sum of $50,000.00 be allocated for the purposes presented.

The Committee recommends the adoption of this substitute resolution.

Mr. Speaker, I move for the adoption of this section of the Committee's report.

. . . The motion was seconded. . . .

DR. F. M. POTTENGER (Los Angeles County): I would like to ask our legal counsel if this is not jeopardizing our position as a non-profit corporation.

VICE-SPEAKER ALESEN: Mr. Hassard, is he here? Will you answer the question, please?

MR. HASSARD: Mr. Speaker, Members of the House of Delegates: The resolution as presented, I do not think, will jeopardize the status of the California Medical Association in any respect. Actually, the California Medical Association is not incorporated. It is a voluntary association. It is true it is on a non-profit basis but the terms of the resolution are such that the Council has discretion to avoid jeopardizing the assets of the Association.

VICE-SPEAKER ALESEN: Is there further discussion?

DR. DOUHGTY: This is one of those things where we shall save $60,000.00 with just a little vote. Doctors are suckers for any kind of a survey. They never do anything for us except get us in bad and spend our money. I say, "Vote no."

DR. LAWSON: We in Alameda County feel that if we had had a proper bureau of Medical Economics ten or fifteen years ago in all of the counties in all of the country, there would not be any need now for any fund to fight the Governor and his cohorts or to spend $66,000.00 for California Caravan.

VICE-SPEAKER ALESEN: Is there further discussion? The motion is on the adoption of the Committee's report.

DR. DOUGHTY: I think we should keep clear on what that entails. Will you give us a ruling on how the House is to vote?

VICE-SPEAKER ALESEN: If you adopt this motion, you are approving the Committee's substitute resolution, thus supporting the economic bureau with an appropriation of a certain amount of money.

MR. HASSARD: May I point out an additional thing? The last part of the resolution provides for an allocation of $60,000.00. That is subject to the approval of the Council because the Constitution of the Association provides that any appropriation by the House of Delegates over $1,000.00 is not effective until approved by the Council.

DR. CHARLES A. FERNISH (Santa Clara County): The reason for this amount of money being increased is that the counties of San Francisco and Santa Clara in Executive Session have been going together with three other counties to establish a department of Medico-Economics. This is a collection agency for doctors, owned by doctors, to collect their own money rather than having private organizations be their collectors. In our own county we have been told that four or five collection agencies will have to go out of business because of our own counties establishing such a collection agency which is a non-profit organization subsidized by our own county societies. Up in the Bay Area, because of the work that has been done, we feel a greater survey should be made of what that status is throughout the state and what the abilities of the people are to make contributions, which hasn't been done, and because of the work of these folks that is being done, we are asking that such a survey be made which will help us to make better relations, better public relationships, and it has been said that if we have good public relations, then we don't need all of these other activities.

I know in our own county work we at some future time will be able to say that we will be able to give service to everyone according to his ability to pay and our own society will then have control of that agency and there will be no control of the person's ability to pay. We can do this rather than going to private agencies who are not interested in our welfare but in their own collections. Because of that, it seems to me that such an appropriation, while it seems a great sum, and although we have been getting some figures from C.P.S., will be the basis upon which public relations will stand rather than some conversation as we have it now.

DR. MOODY: A few years ago, this House of Delegates elected or passed a resolution constituting a body of Executive Secretaries which are an Advisory Committee to the Council. Also, several years ago, this House of Delegates passed a resolution fixing a special assessment of $10.00 per member which was entirely to be spent on the basis of public relations, the working out of good relationships between patients and physicians, and those of you who remember that episode have no pleasant memories. We were in a nebulous state. We didn't know what to do with this money to spend it well. It floundered around; this was done, that was done, and nothing very definitely proposed.

This Executive Advisory Committee introduced to the Council this last week a nebulous plan which is still hazy, groping around, and it has not been yet well fixed: plans have not been well thought out for just exactly this sort of thing.

Also you heard our public relations expert say tonight that there is going to be very shortly not the need for this working out of the relationship with the public but a greater demand for the working out of the relationship between the doctor and patient. We are not yet ready to spend $50,000.00 for another survey. I am opposed.

DR. WILLIAM G. DONALD (Alameda County): Mr. Chairman: May I have the privilege of the floor for Mr. Rollen Waterson, a member of the Planning Advisory Committee, who has envisioned what work the Planning Advisory Committee might do on this, before we conclude?

VICE-SPEAKER ALESEN: Mr. Rollen Waterson, Executive Secretary for Alameda County.

MR. ROLLEN WATERSON: Mr. Speaker, Members of the House of Delegates of the California Medical Association: This resolution which was presented is a combined effort

of San Francisco County and Alameda County Delegations but does not provide for the usual type of survey. It is unfortunate that we do not have enough time tonight to go into the problem of what constitutes real public relations but the problem of public relations is now and always will be determined on the individual physician and patient relationship.

I would like to defer to the Chairman of the Committee, Mr. Hunton.

VICE-SPEAKER ALESEN: Is there further discussion?

DR. MOORE: I would merely like to say that the question has been raised as to what the $50,000.00 is going for. I think if you will read your resolution you will see two portions to it; one for a survey and one for aid and advice. I think the intent was for the county associations—at least that was given to the Committee—to conduct such a survey over a year's period of time and, of course, that would not cost so much, only in the neighborhood of about $25,000.00.

VICE-SPEAKER ALESEN: Dr. Bruck!

DR. BRUCK: I think that we might do some good with this resolution if we could have this sum of money allocated for the purpose outlined in the resolution, to be fixed by the Council, and not to exceed a given amount. I would suggest that amount as has been outlined in the resolution but it seems to me that over the period of the next year we may not need that amount. If the amount is fixed in the resolution at $50,000.00 somebody will be insisting that we spend it and I would very much rather have that at the discretion of the Council.

VICE-SPEAKER ALESEN: Do you offer that as an amendment?

DR. BRUCK: I offer that as an amendment to this resolution.

VICE-SPEAKER ALESEN: Is there a second?

. . . The motion to amend the resolution was seconded. . . .

VICE-SPEAKER ALESEN: It has been moved and seconded that the final paragraph be withdrawn and that therefor we substitute that the Council be allowed to name the amount, not to exceed $50,000.00.

DR. WARD: Mr. Speaker and members of the House: I understood Mr. Hassard said that any expenditure over $1,000.00 was controlled by the Council. I don't think that amendment is necessary because the Council is not forced to spend that money but they can allocate the money according to their discretion. I don't think it is mandatory; we have just told the Council which money they can't exceed and I don't think it need be amended to allow them to prevent the spending of this much money.

VICE-SPEAKER ALESEN: Is there further discussion on Dr. Bruck's amendment?

DR. WARD: Could I discuss the proposition, the original proposition?

VICE-SPEAKER ALESEN: You may, sir.

DR. WARD: I think that the Bureau of Economics that we have formed in San Francisco, following the pattern of Alameda County, is one of the most important steps in our society that we have taken, at least since I have been associated with it. It is pretty difficult to educate this group in the way that we have been educated by following Mr. Waterson's work in the formation of the Bureau of Medico-Economics. I think his contention is perfectly true, that the public relations of doctors begins and ends in the doctor's office. If individual patients have good relations with their doctors, there is no problem of adverse public relations. That problem is brought up with the economics of medicine, the delinquency of accounts, and such. If you have no delinquent accounts, you have no bad public relations. That is an organization and type of service that gives a basis or is the root of a disturbance that arises between doctor and patient. If you have good individual doctor relations, surely, you will have good relationships of the medical profession as a whole.

I would hate to see this resolution defeated because I think there is a plan that has never been explored at all, just as the field of prepaid medical care was not explored before the California Physicians' Service got into it. This is a research problem where we can really do something to tell the individual county medical societies how they can have individually good relationships between their doctors and patients.

VICE-SPEAKER ALESEN: Is there any further discussion on Dr. Bruck's amendment to allow the Council to use its discretion to limit the amount to $50,000.00?

. . . There being no further discussion on the amendment, the question was called for and the motion was put to a vote. . . .

VICE-SPEAKER ALESEN: The Chair is in doubt. All those in favor of adopting the amendment will please stand, and those opposed to the amendment will then please stand.

. . . A standing vote was taken on the motion to adopt the amendment. . . .

VICE-SPEAKER ALESEN: The Chair is no longer in doubt. The amendment is carried and the pending question is on the adoption of the Committee's recommendation as amended. Is there further discussion upon that?

Dr. Andrews!

DR. ANDREWS (Sonoma County): As I sat in the audience I heard a few critical remarks about this measure being more or less geographically partisan. I happen to come from one of the cow counties myself and medico-economics happens to be a hobby of mine. During my college education, there was no opportunity to study medico-economics but during the practice of medicine and in a small community in the last fifteen years, it has become increasingly impressive upon me that the material we get from throw-away magazines on medicine isn't worth a damn. It behooves medicine, organized medicine, to reach in its pockets and to employ adequate statisticians and men trained in medico-economics research to try and find an answer to our present problem. I firmly support this resolution.

VICE-SPEAKER ALESEN: Is there further discussion?

DR. BLONDIN!

DR. E. A. BLONDIN (San Diego County): Mr. Speaker: Last night a few of us were privileged to sit around and listen to Dr. Fernish. Mr. Waterson, a few minutes ago, was asked to come up here and express those sentiments, telling us something about it. He made a few remarks and then said he wanted to defer to Mr. Hunton, the Chairman of the Committee. Now what happened? Mr. Waterson didn't tell us the story and Mr. Hunton didn't come over to finish up telling us. I wish either one of these two gentlemen would come over and tell us what you want us to know. I would be very grateful if either one of these two gentlemen would come over and tell us their story.

VICE-SPEAKER ALESEN: Mr. Hunton!

MR. HUNTON: Mr. Speaker and Members of the House: The Advisory Planning Committee went before the Council on Tuesday of this week and recommended that a program designed to cultivate better human relations between the doctor and the individual patient should be studied and taken under advisement. The Committee did not request any definite action by the Council on that day but we did think that before this week was over some action on this recommendation should be taken by the Council.

I am not speaking for or against the resolution before this House because I realize I have no authority to do so, but to the best of my knowledge no member of the Advisory Planning Committee had any advance knowledge that this resolution No. 14 was to be introduced. I believe that includes Mr. Waterson from Alameda County.

The thought of the Advisory Planning Committee was about this: That the problems of public relations of the medical profession can be divided into two divisions: first, the problem of political public relations such as this Association has been undertaking for the past two years under the splendid work performed by Whitaker and Baxter. The second part was what some members of our Committee have chosen to call "human relations" as representing the relationship between individual doctors and individual patients. The thought behind stressing the so-called human relations was that if doctors gave to their patients good treatment in terms of human treatment rather than medical treatment, the crises which are confronting the Association and the profession from time to time would not rise in the future; that this problem ought to be met at the source and that it should be started at the grass roots.

We all know that in public relations work in any corporation—a utility company, a department store or any other organization dealing with the public—the first thing the public relations man does is to get at those people who meet the public and represent the organization. In banks they will go to the bank tellers; they will start with them and point out what the relationship with the customer of the bank is and they will also take steps to turn those relationships into channels which will make for better feeling on the part of the customer for the bank. The same thing is true everywhere.

It is the belief of the Advisory Planning Committee that we have in California in the C.M.A. some 8,639 public relations outlets in the form of that number of members of the Association. We believe that outlet should be cultivated. Mr. Whitaker gave you in his report a little while ago the fact that he had recommended as a part of the program for the coming twelve months a program such as the Advisory Planning Committee recommended to the Council. Dr. Moody stated that program was given to the Council in nebulous fashion and, as Chairman of the Advisory Planning Committee, I will have to plead guilty to that. When we put it to the Council on Tuesday, it was with the thought that the members of the Council would, during this week, have an opportunity to think over what we recommended and by the end of this week, with a new Council sitting, we might get an expression of opinion as to how the Council felt. For your information, I would like to give you the three points suggested to the Council for consideration by the Advisory Planning Committee. First, that emphasis on the human relations of medical practice be started immediately in order to improve doctor-patient relationships. Second, that this work be undertaken directly by the California Medical Association through the Executive Secretary under the direction of the Executive Committee and in cooperation with the Advisory Planning Committee. Third, that the Executive Committee be authorized to appropriate sufficient funds to carry out this program as it develops. Those were the three points recommended by the Advisory Planning Committee to the Council.

The thought behind this is quite simple. Mr. Whitaker has presented a budget and an outline of the campaign for the next twelve months in which, for the first six months, he is proposing that the present public relations campaign be carried on one hundred per cent and for the second six months the campaign be decreased, that is, that a lot of the field staff and the personnel no longer be employed. By that time the Voluntary Health Insurance Weeks will have been completed and that part of the campaign will be on a decreasing scale.

It was the hope and thought of the Advisory Planning Committee that a real grass roots human relationship program might be developed so that, as Mr. Whitaker's campaign tapers off, the other one might be built up so that at the ultimate point we might level off the two campaigns and that they might remain on the same level as of today. Thank you. (Applause.)

VICE-SPEAKER ALESEN: Dr. Garland!

SECRETARY GARLAND: May your Secretary say a word?

As Treasurer of this Organization, with all due respect to the distinguished speakers before me, I will say I don't like it and ask your vote against it.

DR. STANLEY R. TRUMAN (Alameda County): Gentlemen, I think that it would be a great shame if this Organization should turn down this splendid program. I think that we are all economically minded. We do not want to waste our money but I think we have been learning our public relations from *Medical Economics* too long. I think it would be a splendid thing if this Organization could start a survey to find out what your Secretary says. When we turn patients away, that is just the thing that is going to make socialized medicine. I think we should be surveyed in our own actions and our actions with our patients. I am in favor of this motion and I hope you will pass it.

VICE-SPEAKER ALESEN: Is there further discussion on the pending question? If not, are you ready to vote on the Committee's recommendation?

. . . There being no further discussion, the motion was put to a vote and it was carried. . . .

VICE-SPEAKER ALESEN: A call has been made for a division. All those in favor of the motion will signify by standing, and then those opposed will please stand.

. . . A standing vote was taken on the motion. . . .

VICE-SPEAKER ALESEN: The motion is carried, gentlemen.

DR. MOORE:

Resolution No. 15:

The Committee would like to point out that the provisions outlined in this resolution are already operative and to make the recommendation that this resolution be not adopted.

Mr. Speaker, I move that it be approved.

VICE-SPEAKER ALESEN: If you adopt the Committee's recommendation, you reject the resolution.

. . . The motion was seconded, put to a vote and carried. . . .

DR. MOORE:

Resolution No. 16:

The Committee recommends that this resolution be not adopted.

The Committee's recommendation as printed has been amended. I would like to submit a substitute resolution for Resolution No. 16 as recorded.

WHEREAS: The Council of the C.M.A. has recommended to the House of Delegates that the dues of the C.M.A. for 1948 be not less than $60.00 per member in order to meet the approved budget; Therefore, Be It

Resolved, That the dues of C.M.A. for the year of 1948 be set at $60.00 per member.

VICE-SPEAKER ALESEN: Now, Dr. Moore, you are recommending that Resolution No. 16 be not adopted. You are also recommending that the dues be set at $60.00. Isn't that your purpose by substitution?

DR. MOORE: This Resolution No. 16 recommended $30.00.

VICE-SPEAKER ALESEN: Well, your report states that you recommend that the resolution be not adopted and then you are going on to amend this by stating that the dues be set at $60.00 for the year 1948; is that correct?

DR. MOORE: That is correct.

VICE-SPEAKER ALESEN: Is there discussion upon the

recommendation of the Committee that the substitute resolution stating the dues be $60.00 for 1948?

. . . The motion was seconded, put to a vote, and it was carried. . . .

VICE-SPEAKER ALESEN: The California Medical Association dues are set at $60.00.

Dr. Moore, proceed.

DR. MOORE:

Resolution No. 17:

The Committee has determined that the provisions recommended in this resolution are already under continual consideration by the Board of Trustees of California Physicians' Service and feel that its adoption would be superfluous. The Committee therefore recommends that this resolution be not adopted.

Mr. Speaker, I move that section of the Committee's report be adopted.

. . . The motion was seconded and, there being no discussion, it was put to a vote and carried. . . .

VICE-SPEAKER ALESEN: It is adopted.

DR. MOORE:

Resolution No. 18:

The Committee has slightly changed the third paragraph of this resolution which appears on page 10 of your printed resolutions.

It has been changed to read as follows:

Now, Therefore, Be It

Resolved, That the Delegates of this Association to the House of Delegates of the American Medical Association are hereby authorized to expedite the recommendations of the public relations counsel, commonly known as the Rich Report, at the next meeting of the House of Delegates of the A.M.A.

The Committee recommends the adoption of this amended resolution.

Mr. Speaker, I move that this section of the Committee's report be adopted.

. . . The motion was seconded. . . .

VICE-SPEAKER ALESEN: Is it your wish to discuss the recommendation of the Committee on this amended resolution?

DR. BLONDIN: Did Dr. Moore by mistake read the original recommendation or did he read the changes and his recommendation? It seems to me he read the third paragraph of the original resolution.

DR. MOORE: The first two paragraphs of the original resolution are "Whereases" and the third paragraph, beginning with "Resolved" is what I read. The Committee has recommended that this substitute paragraph be used instead of the third paragraph as originally read. The fourth of the original resolution was not changed.

VICE-SPEAKER ALESEN: Was there further discussion on that?

. . . There being no further discussion, the motion was put to a vote and it was carried. . . .

VICE-SPEAKER ALESEN: It is so ordered.

DR. MOORE:

Resolution No. 20:

The Committee recommends the adoption of this resolution.

Mr. Speaker, I move that section of the Committee's report be adopted.

. . . The motion was seconded. . . .

DR. CLINE: Mr. Speaker and Members of the House: I move amendment of the Committee's report by substitution: Be It

Resolved, That a Committee of not less than five and no more than nine members of the House be appointed before June 1, 1947, for the purpose of investigating the action and activities of the Council of this Association during the past three years, said Committee to be appointed in the following manner:

1. The Vice-Speaker Elect at the 1947 Annual Session shall make the appointments and determine the exact size of the Committee and name the Chairman of the Committee;

2. The Vice-Speaker shall give due consideration to geographic distribution and size of the population areas in making appointments:

3. In selecting members of the Committee he shall give due consideration to character, knowledge of medical affairs, interest in the welfare of this Association and willingness to devote whatever amount of time may be necessary to conduct a thorough investigation;

4. No member or former member of the Council shall be eligible to serve on the Committee; and, Be It Further

Resolved, That at the earliest possible date the Committee shall meet, organize and prepare plans for completing a thorough investigation of the Council; And, Be It Further

Resolved, That the Committee shall be specifically instructed to investigate the following items:

1. Whether the Council has acted within the limitation of and in conformity with the present provisions of the Constitution and By-Laws of this Association in conducting the business of the Association;

2. Whether there has been malfeasance or misfeasance in office on the part of any member of the Council during the past three years;

3. Whether the Council has exercised reasonable diligence in carrying out the instructions of the House of Delegates which were mandatory in nature and whether the Council has given due and proper consideration to those Acts of the House of Delegates, whether in the form of recommendation or suggestion;

4. Whether the actions of the Council during the past three years has been consistent with the general policies laid down by the House of Delegates in session, whether Annual or Special, held since April 1, 1944, and the present date; And, Be It Further

Resolved, That while the Committee is especially instructed to investigate each and all of the foregoing, it shall, in addition, be empowered to investigate any and all phases of the Council's activities; And, Be It Further

Resolved, That all recommendations of the Association shall be made available to the Committee and that all officers and Councilors of the Association are hereby instructed to cooperate with the Committee in its investigation and that advice and assistance of the legal counsel of the Association shall be made available to the Committee. In connection with the services rendered to the Committee, legal counsel shall not be required to disclose to the Council or any member thereof or any committee member of this Association or House of Delegates the nature of any advice given to the Committee or any matter or thing done for the Committee or any communication between the Counsil and the Committee except with the express consent of the Committee; And, Be It Further

Resolved, That the time, places and nature of meetings of the Committee shall he determined solely by the Committee; And, Be It Further

Resolved, That the Council is hereby directed to provide the Committee with such funds as shall be reasonably necessary to carry out these instructions: And. Be It Further

Resolved, That the Committee shall report to the Chairman of the Council and subsequently to the Council any improvement for conduct upon the part of any officer,

Councilor or employee of the Association or any evidence of dereliction of duty on the part of any officer, Councilor, employee, or lack of conformity of action of the Council with the Constitution and By-Laws of the Constitution that may come to the Committee's attention; And, Be It Further

Resolved, That the Committee shall make a full report in writing to the House of Delegates at the 1948 Annual Session, including therein its opinion with respect to the wisdom and judgment exercised by the Council in the conduct of the affairs of the Association during the past three years.

. . . The motion was seconded. . . .

VICE-SPEAKER ALESEN: Is that an amendment by substitution? Is that a substitution to the recommendation of the Committee?

DR. CLINE: Yes.

VICE-SPEAKER ALESEN: The amendment is now open for discussion.

Dr. Cline!

DR. CLINE: I would like to explain this amendment. There have been many things said privately and some publicly with reference to the conduct of the affairs of this Association by the Council. The members of this Association have a right to know whether or not their affairs are being well and carefully managed. The Council is composed of human beings. They work hard in spite of the wise cracks that we heard today. It does the best job it knows how for your Association but, as humans, it is fallible.

Certain of the resolutions brought into this House of Delegates expounded a few minor evidences of the inefficiencies on the part of the Council. Therefore, it is the feeling of the Council that it should be thoroughly and completely investigated and that a full report be made to this House of Delegates to the end that you know what the Council is doing. The Council desires to serve the Association as best it can. If it is not doing so, then please have the deficiencies pointed out. At the same time, if the Council is doing a reasonably good job, let us have that established beyond any peradventure of doubt.

The reason for this appointment of this Committee in this particular way as outlined is because of the elected officers of this Association. In a very short time there will only be one of them who has not been a member of the Council. To that man you gave a resounding vote of confidence this evening. I think you can thoroughly agree that he will appoint a Committee and with the safeguards placed about this Committee, there can be thrust upon it the responsibility of this investigation.

VICE-SPEAKER ALESEN: There is before you the amendment. Is there further discussion?

DR. REMMEN: It seems to me that the last speaker had taken a rather defensive attitude. The idea of a survey committee is not a new idea. We had such a committee in 1938. I don't remember the details except I know that a survey was made on the efficiency and activities of the Council and expenditures. I am sure there is no reason or no motive, in the way this was drawn up, in suggesting that anyone was derelict in his duty. Why should one man, no matter how good he is, be designated to select this important committee—I don't know.

The resolution, as originally drawn, suggested that two members be appointed by the Council, one member to be selected by the following component societies: San Francisco, Los Angeles, Alameda, Sacramento and San Diego. That at least would seem to give some of the larger counties a little opportunity to work in that survey. One doesn't necessarily make a survey with the critical point of view or with the idea of finding trouble. Surveys should be constructive. I am sorry to say that many of ours which have been authorized at great expense by this Association in the past haven't been so successful or so productive.

Mr. Chairman, I would like to move, as an amendment to Dr. Cline's amendment, that that paragraph following the first "resolved" on page 2, which is giving a special committee a survey, that it shall be created and consist of seven members to be selected as follows. Two members to be appointed by the Council and one member to be selected by each of the following component societies: San Francisco, Los Angeles, Alameda, Sacramento, and San Diego, and that this be substituted for Dr. Cline's suggestion that the Vice-Speaker of the Association select the whole committee. Why place that responsibility on one poor man? Myself, I like democracy.

I greatly admire the organization of this House of Delegates which has consistently carried everything except for about forty votes but just the same, I think, perhaps, in principle most of us do admire democracy.

VICE-SPEAKER ALESEN: Is there a second to Dr. Remmen's amendment?

DR. BREITMAN: I will second the amendment.

VICE-SPEAKER ALESEN: We are now at the end of the amendments. It cannot be amended beyond the second time. The question now before you is on the change of the size of the committee as suggested by Dr. Remmen whose amendment is that, instead of being named by the Vice-Speaker Elect, it be named by the special committee of two members to be appointed by the Council, one member to be selected from the component societies of San Francisco, Los Angeles, Alameda, Sacramento and San Diego.

Do you understand the amendment?

Is there a discussion on this amendment now?

Dr. Shipman!

DR. SHIPMAN: Members of the House of Delegates and members of the Council: I would like to point out that if you have confidence in the Council, the easiest thing to do would be to defeat this and save a great deal of money. It seems to me we have appropriated money somewhat inadvisedly this evening and I hate to see it appropriated even for the investigation of myself and the Council. I hope personally that it will be defeated. I hate to take issue with Dr. Cline, though.

. . . Speaker Askey assumed the Chair. . . .

SPEAKER ASKEY: Is there further discussion on Dr. Remmen's amendment?

Dr. Bruck!

DR. BRUCK: Members of the House of Delegates: It seems to me that when one asks to have himself investigated, it should be a wise investigation and a thorough investigation, and that the investigation should be done by a group that would encompass the whole House of Delegates and not limit it to five populous counties of the state. I do not believe that the Council should be investigated by two members whom the Council might appoint. I would, therefore, ask you to defeat the amendment.

SPEAKER ASKEY: Is there further discussion on the amendment to the amendment?

. . . There being no further discussion on the amendment to the amendment, a vote was taken on the motion to adopt the amendment to the amendment, and the amendment was lost. . . .

SPEAKER ASKEY: The amendment is lost.

The amendment that is now before you is that as presented by Dr. Cline. Is there discussion on that amendment?

. . . There being no discussion on the amendment to the motion, the question was called for, the motion to adopt the amendment was put to a vote and the amendment was lost. . . .

SPEAKER ASKEY: The amendment is lost.

You now have before you the recommendation of the

Committee which was the adoption of this original resolution. Is that correct?

DR. MOORE: Correct.

DR. WARD: As a member of the Committee and also as a member of the House of Delegates, I would like to speak against that recommendation. I think the whole thing is a damn nuisance. (Applause.) I have the utmost confidence in our Council and I see no reason at all why we should have an investigating committee to investigate our trusted, elected representatives. I am pretty well satisfied with the way the business of the California Medical Association has been run. I hope you will defeat the recommendation. (Applause.)

. . . The question was called for. . . .

SPEAKER ASKEY: The motion before you now is to adopt the resolution, No. 20.

. . . The motion was put to a vote on the adoption of resolution No. 20 and the motion was lost. . . .

SPEAKER ASKEY: It is lost.

Continue, Dr. Moore.

DR. MOORE:

Resolution No. 21:

The recommendations enumerated in this resolution are already covered by the various activities of the Council and the committees. Your Committee feels that no further duplication of activities is desirable and therefore recommend that this resolution be not adopted.

Mr. Speaker, I move this section of the report be adopted.

. . . The motion was seconded and, there being no discussion, it was put to a vote and the motion was carried. . . .

SPEAKER ASKEY: The motion is carried. Resolution No. 21 is defeated.

DR. MOORE:

Resolution No. 22:

The Committee recommends that this resolution be adopted.

Mr. Speaker, I move that this section of the report be approved.

. . . The motion was seconded and, there being no discussion, it was put to a vote and carried. . . .

SPEAKER ASKEY: It is carried.

DR. MOORE:

Resolution No. 23:

The Committee recommends that this resolution be adopted.

Mr. Speaker, I move that this section of the Committee's report be adopted.

. . . The motion was seconded, and, there being no discussion, the motion was put to a vote and it was unanimously carried. . . .

SPEAKER ASKEY: It is carried.

DR. MOORE:

Resolution No. 24:

The Committee recommends that this resolution be adopted.

Mr. Speaker, I move that section of the Committee's report be adopted.

. . . The motion was seconded. . . .

SPEAKER ASKEY: Is there discussion?

DR. BRUCK: I am very much in favor, of course, of having the history of the California Medical Association prepared and done in the best possible way, but, as a member of the Council, I would like to know what "reasonable sums" are. We have just had about fourteen or fifteen years of blank checks in Washington and I don't think this is the time to start it here.

SPEAKER ASKEY: Is there any further discussion?

. . . There being no further discussion, the question was called for, the motion was put to a vote. . . .

SPEAKER ASKEY: The Chair is in doubt. All those in favor will please stand and then those opposed will please stand.

. . . A rising vote was taken on the motion. . . .

SPEAKER ASKEY: The motion is lost.

Proceed, Mr. Chairman.

DR. MOORE:

Resolution No. 25

The Committee recommends the adoption of this resolution.

Mr. Speaker, I move the adoption of this section of the Committee's report.

. . . The motion was seconded, and, there being no discussion, it was put to a vote and carried. . . .

SPEAKER ASKEY: It is carried. Proceed.

DR. MOORE:

Resolution No. 27:

The Committee has amended this proposed amendment to the By-Laws as presented by eliminating the requirement for a mandatory publication within one year and setting the 90-day notification period to begin upon receipt of the manuscript by the editor. As amended, this amendment to the By-Laws will then read:

1. By deleting Paragraph 1, of Section 4, of Chapter VII; and

2. By adding the following as paragraph 2, of Section 5, of Chapter VII:

"Whenever the author of a paper read before this Association has not been advised by the Committee on Publications or the Editor of California Medicine within ninety days after receipt of the manuscript by the editor that the paper is considered suitable for publication in the official publication of the California Medical Association and will be published, the author of the paper may if he so desires, offer it for publication elsewhere."

The Committee recommends the adoption of this amended resolution.

Mr. Speaker, I move this section of the Committee's report be adopted.

. . . The motion was seconded and, there being no discussion, it was put to a vote and carried. . . .

SPEAKER ASKEY: It is carried.

DR. MOORE:

Resolution No. 28:

The Committee would like to direct your attention to the provisions of this resolution which do not call for action but request serious consideration by the members of the House of Delegates. It is the recommendation of the committee that this resolution be adopted.

Mr. Speaker, I move this section of the Committee's report be adopted.

. . . The motion was seconded and, there being no discussion, it was put to a vote and carried. . . .

SPEAKER ASKEY: It is carried.

DR. MOORE:

Resolution No. 29:

The Committee recommends that this resolution be adopted.

Mr. Speaker, I move for the adoption of this section of the Committee's report.

. . . The motion was seconded and, there being no discussion, it was put to a vote and carried. . . .

SPEAKER ASKEY: It is carried.

DR. MOORE: I would like to move for the adoption of the complete report as a whole as amended.

. . . The motion was seconded, put to a vote and unanimously carried. . . .

SPEAKER ASKEY: It is carried.

At this time your Speaker wants to compliment the members of the various Committees that worked so long and hard. I want to call their names again so you may know them.

Credentials Committee: Dr. de los Reyes, Dr. Orrin Cook and Dr. Royston.

Reference Committee No. 1: Dr. Regan, Chairman, Dr. Lum and Dr. Roos.

Reference Committee No. 2: Dr. Chester L. Cooley, Dr. Alfred B. Wilcox and Dr. C. L. Mulfinger.

Reference Committee No. 3: Dr. A. E. Moore, Dr. Eugene Hoffman and Dr. Robertson Ward.

The Tellers Committee: Dr. Royston, Dr. Simpson and Dr. V. G. Ghormley.

The second Tellers Committee was composed of Dr. Doughty, Dr. Delprat and Dr. Cunnane.

I want to thank them all in behalf of this House and assure them that we know how much work they have done.

Now, there are a few things we are going to have to do in order to get through here and finish our business. One of the first things before you is the adoption of the budget. Do I hear a motion to approve or adopt the budget as presented?

DR. BRUCK: I so move.

. . . The motion was seconded and, there being no discussion, it was put to a vote and unanimously carried. . . .

SPEAKER ASKEY: The budget is adopted.

Is there any New Business that can properly come before this House of Delegates?

If not, I would like to call for a certain gentleman in the audience to come to the rostrum, Dr. George Kress. Will you please come. And, Dr. Lowell Goin, if he is in the house—I would like to have him come also. (Rising Applause.)

I want to introduce Dr. Sam McClendon who has something to say in regard to Dr. Kress.

DR. SAM J. MCCLENDON: Mr. Speaker, Members of the House: I thought when I spoke to you a few minutes ago that that would be the last time I would appear before this House but it seems to me I have still another very pleasant duty. I have been associated with Dr. George Kress for a good many years as a member of the House and as a member of the Council and as an officer of the California Medical Association. I have seen his work, his able work, his generous work, and his sacrificious work in the California Medical Association so, it is really with tremendous pleasure that I present to Dr. George Kress this plaque in honor of his years of service as Secretary and as the author of the History of California Medicine. (Applause.)

DR. GEORGE KRESS: Mr. Speaker and Members of the House: I thank you again, all of you, very, very much for this continued expression of kind thoughts. I love you all and I want to be part of you until I pass on and I know that each continuing year, each year that follows, will give me the same unceasing pleasure even though I am not so active a part of your body as heretofore in the many years past and to be able to look forward to such participation in your conferences and to be a part of you will make these last years very, very pleasant. Thank you very, very much. (Applause.)

SPEAKER ASKEY: This meeting of the House would not be a meeting of the House without your presence, Dr. Kress, and we all love you and are glad you are here with us.

At this time I am going to ask the President of the California Medical Association to present to you your new President. Dr. McClendon!

DR. MCCLENDON: Mr. Speaker and Members of the House: I again have the pleasant privilege and I would like to present to you your newly-elected President, or your inducted President, rather, Dr. John Cline. (Applause.)

DR. CLINE: Thank you very much. You have been very patient with me through the years and you will hear a great deal more from me. You are going to have to put up with me for another year. I will do my best to serve you and all I am going to ask is the continued unified support of the California Medical Association, that it be maintained, so that we can meet the enemies who threaten us, more effectively than heretofore. Thank you very much.

It is my extreme pleasure to present to you someone whom you know very, very well, the President-Elect, Dr. Vincent Askey. (Applause.)

PRESIDENT ASKEY: I am not going to make a speech. You have heard too much from me already. Thank you again. I appreciate it very much.

It is now my great pleasure, as your Speaker, in one of his last duties to this body, to present to you your new Speaker of the House of Delegates of the California Medical Association, Dr. Lewis A. Alesen. (Applause.)

DR. LEWIS A. ALESEN: Thank you, Mr. Speaker.

I would now like to present to you your new Vice-Speaker, Dr. Donald Charnock.

VICE-SPEAKER CHARNOCK: Thank you very much, Mr. Speaker.

SPEAKER ASKEY: At this time I would ask your new President to come to the rostrum. He has a duty to perform which I wish he would perform.

PRESIDENT CLINE: At this time I am not performing any duty which is normally the duty of the new President but rather the duty of the Past President, but in the unavoidable absence of Dr. Phillip Gilman, it is my privilege and pleasure to present your retiring President, Dr. Sam McClendon who has served you extremely well, with this memento of the Association's appreciation of the services which he has rendered to it. He has served faithfully and I know that in his retirement from the Presidency he will continue to serve you faithfully in every way in which he can because that is the kind of person Sam McClendon is.

Sam, it is with a great deal of pleasure that I present you with this plaque in appreciation of your services as President of this Association.

DR. MCCLENDON: It is hard to say very much under circumstances like this. I appreciate this very much and to John Cline I would also like to express my appreciation of the California Medical Association and its officers this year. I am proud of the actions of this House tonight, to know that we have the unanimous support of the Organization in all of its activities. Thank you very much.

SPEAKER ASKEY: Mr. President, I want to make one or two announcements and then we are all finished.

The new Council which means all newly-elected members of the Council and all present members, will meet in conference room No. 6 at 8:00 o'clock tomorrow morning.

At this time I will ask for approval of the minutes of this Session of the House of Delegates and would ask that the President, the Speaker and the Secretary be appointed as a committee to edit these minutes. Do I hear such a motion?

DR. BRUCK: I so move.

. . . The motion was seconded, put to a vote and carried. . . .

SPEAKER ASKEY: It is so ordered.

At this time is there any further business. If not, a motion to adjourn is in order.

. . . It was moved, seconded, and carried that the meeting adjourn. . . .

. . . The meeting adjourned at 12:45 a.m. . . .

C.P.S.—A Library Of Medical Data

A phase of California Physicians' Service record-keeping which has potential value beyond its uses in the operation of a medical care prepayment plan is the compilation of data by the Medical Claims Department. These records show the incidence of disease among C.P.S.' 450,000 members, the kind of disease, the method of diagnosis, the course, the treatment, the end result, the cost.

Knowledge that there are such records suggests immediately to imaginative minds scores of uses to which they might be put in the advancement of scientific medicine as well as in medical economics.

Although the figures at present, covering some 450,000 beneficiary and 7,500 physician members of C.P.S., admittedly are not an exact cross-section of the health and illnesses and treatment of all the people of California, they may be looked upon as representative of all save the medically indigent. Dr. A. E. Larsen, C.P.S. medical director, believes that from the records at hand it is possible to determine with a fair degree of accuracy how many people in a community will be ill at any given time and the nature of their illness. As C.P.S. membership increases and actuarial experience is broadened, forecasting on the basis of the records can be made almost exact.

In such information there are medical economic values lying beneath the obvious use of the figures in the financial operation of a prepaid medical care plan. Knowing how many people are ill at any time and the kind of treatment they require, it is possible to say how many doctors are occupied, what they are treating, and how busy they are, in any area of the state. And with that information it is possible to supply an answer to the question: Where are doctors needed most and what kind of doctors are needed? Useful information—not only immediately useful to those interested in economic distribution of medical care, but of possible assistance to medical schools in planning curricula. Exact knowledge of what medical students will face in practice could be converted to advantage in determining what kind of training they should have. To know in advance what proportion of a student body might be expected to find need for its services in a particular branch of medicine is to know how to arrange classes, what to emphasize, how to guide the interests of individual students so that the class upon graduation will most nearly fit its economic surroundings. In this way the problem of distribution of medical care might find a beginning of its solution in the medical colleges.

Another by-product of the C.P.S.—one which is immediately and importantly useful politically—is the library of facts regarding medical care availability and costs. These facts are the source of informed, hence intelligent, argument against state medicine. Already they have been cogently used in this respect, for it has been difficult for the advocates of state medicine to advance their proposals with supposition and guesswork in the face of opponents armed with fact and experience.

Although doctors have had to concern themselves with the economic and, of late, the political aspects of medicine, probably more appealing to their natural inclination of thought are the scientific uses to which the data being gathered might be put. In this regard, Dr. Larsen pointed out that through his office it is possible to get the entire medical record of an individual member, or the records of a hundred members, or a thousand, with the same disease. The records of patients who have flitted from doctor to doctor, from diagnosis to diagnoses, from hospital to hospital—records that are available only piecemeal from each of those sources—can be supplied in aggregate by C.P.S. at the touch of a few keys on a punch-card machine. Moreover, the records of all patients with similar histories can be furnished. Not the names of patients, of course, but all the other facts contained in conventional medical records.

With selected data before them, practicing physicians, teachers in medical schools, and those engaged in research might draw comparisons and contrasts leading ultimately to answers to problems confronting them. A researcher, particularly, might go to this source for support of a theory. Or study of the figures—a search for significant parallels and

divergences in case histories where many are available—might develop the one remarkable fact needed to open new avenues of research, as it was once remarkable in another time that milkmaids had smooth skins.

Doctors writing medical manuscripts might use the C.P.S. records to advantage. One writing of, say, Hodgkin's disease, could in a few minutes get from the C.P.S. files more and considerably broader data concerning some phases of the disease than he could expect to come by even in years of specialized practice.

There is nothing new about these uses of statistics in medicine. But C.P.S. as a source of the statistics is relatively new, and it is unique in that it can supply trustworthy data on a considerably broader segment of medical practice than any previously available source in the state. Moreover, the statistics are medicine's own and notable on that score alone.

At present C.P.S. has no regular department for supplying physicians with the particular data for which they might ask. Dr. Larsen anticipates, however, that such a function can be included in the organizational set-up if the volume of inquiries warrants. Meanwhile the data can be furnished by the staff as it is at present.

C.P.S. Letter on Use Of Lay Laboratories

Pointing out that it is the intention of California Physicians' Service to render professional medical services to beneficiary members, the C.P.S. Board of Trustees has sent to physician members a letter requesting that all x-ray and laboratory work for C.P.S. patients be done by qualified physicians rather than by lay agents. Text of the letter follows:

"The basic conception in the operation of California Physicians' Service is that beneficiary members prepay dues, in return for which they receive *professional* services as needed.

"Since California Physicians' Service is an organization owned, controlled and directed by doctors of medicine, it goes without saying that the services rendered our beneficiary members should be given by licensed physicians and surgeons.

"In this respect it has been noted by C.P.S. that an increasing amount of x-ray and laboratory work is being performed by lay agents, rather than by our doctors.

"In order to maintain the principles on which C.P.S. was founded, it is our strong recommendation that in the future ALL laboratory and x-ray work which cannot be performed in your office be referred to physicians qualified to do this type of work.

"We shall sincerely appreciate your cooperation in this matter."

In Memoriam

ALLEN, FRANCES MORTON. Died in San Diego, April 13, 1947, age 79. Graduate of the University of Michigan Medical School, Ann Arbor, 1896. Licensed in California in 1908. Doctor Allen was a Retired Member of the San Diego County Medical Society and of the California Medical Association.

✣

BRONFELD, NATHAN. Died in Los Angeles, April 10, 1947, age 61, of a heart attack. Graduate of Loyola University School of Medicine, Chicago, 1916. Licensed in California in 1920. Doctor Bronfeld was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✣

DAVIDSON, LAWRENCE LEROY. Died in Santa Monica, April 21, 1947, age 46. Graduate of the University of Nebraska College of Medicine, Omaha, 1926. Licensed in California in 1941. Doctor Davidson was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✣

KELLY, THOMAS HENSHAW. Died in San Francisco, May 10, 1947, age 57, of coronary occlusion. Graduate of the University of Cincinnati College of Medicine, 1914. Licensed in California in 1920. Doctor Kelly was a member of the San Francisco County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✣

STEELE, ARTHUR BRUCE. Died in Santa Barbara, February 20, 1947, age 49, of a cerebral hemorrhage. Graduate of Stanford University School of Medicine, Stanford University, San Francisco, 1931. Licensed in California in 1931. Doctor Steele was a member of the Santa Barbara County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✣

STEEN, EMERALD JASPER. Died in Fullerton, April 24, 1947, age 53, in an automobile accident. Graduate of the College of Medical Evangelists, Loma Linda, Los Angeles, 1920. Licensed in California in 1920. Doctor Steen was a member of the Orange County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✣

WILCOX, ROBERT WILLIAM. Died in Seal Beach, April 6, 1947, age 57. Graduate of Stanford University School of Medicine, Stanford University, San Francisco, 1917. Licensed in California in 1918. Doctor Wilcox was a Retired Member of the Los Angeles County Medical Association, the California Medical Association, and an Affiliate Fellow of the American Medical Association.

✣

YELLIN, DANIEL. Died in San Francisco, March 5, 1947, age 32. Graduate of the University of California Medical School, Berkeley-San Francisco, 1939. Licensed in California in 1939. Doctor Yellin was a member of the San Francisco County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Salute to a Gentleman

In the late evening of Saturday, May 10, 1947, a versatile student and well known obstetrician went to his eternal reward. In the eyes of many he was just a large and cheerful physician engaged in the timeless task of delivering new souls into the world and protecting the health of their mothers. But to many physicians he was first and foremost a man of remarkable honesty and fearlessness, who performed a great and lasting benefit for medicine in California. Thomas Henshaw Kelly was one of the two marble pillars upon which our voluntary health insurance program was erected. He was one of the two men who gave their time and energy unsparingly in order that this venture might survive its delicate birth and succeed in its uncertain youth. And Tom Kelly is dead.

Besides his contribution to the development of California Physicians' Service, Doctor Kelly took a vigorous part in the affairs of the San Francisco County Medical Society and the State Medical Association for many years. He was Secretary of the San Francisco County Medical Society from 1928 to 1932, and President in 1937. He was a member of the Council of the California Medical Association from 1929 to 1938, and served as Chairman of that body from 1933 to the spring of 1936. It seems only a few years since we saw him on our occasional visits to the new office of that Association in the 450 Sutter Medical Building, when Doctor Emma Pope was Secretary. Doctor Pope would sit serenely in her chair, blinking with gentle perturbation at the torrent of verbiage on miscellaneous state problems which Tom would loose forth upon the morning air, while pacing the floor in several directions. His public utterances were entertaining; his semi-private ones unforgettable. Besides his county and state medical organizations, he took an active part in the Department of Obstetrics at Stanford University Medical School, in the Bay District Obstetrical Society and in other scientific groups. He was graduated from the University of Cincinnati School of Medicine in 1914 and had reached his 57th year at the time of his death.

Tom Kelly was a remarkable speaker and an unusually able debater. His utter frankness and vigor of expression disturbed a few who would rather keep unpleasant truths unspoken. He plunged into hobbies with a gargantuan enthusiasm, progressing from one to another with Chestertonian glee and extravagance. Johnson observed that "He who aspires to be a hero must drink brandy." We are quite certain that Tom never had any such aspirations; he came by his heroism unconsciously, but could never have been accused of refusing to fulfill Johnson's requirement! He loved life and he had many friends. None will miss him more than those in the California Medical Association, especially those who worked in 1932 and 1933 on the problems of medicine, group hospitalization, and voluntary sickness insurance. His wit and wisdom will be lacked; his spirit long remembered.

To his widow we wish to extend our deepest sympathy. *L.H.G.*

NEWS and NOTES

NATIONAL • STATE • COUNTY

FRESNO

Dr. Hyman M. Ginsburg has been chosen by the local chapter of Hadassah as one of 600 American medical men whose names are to be placed in the cornerstone of a new hospital unit for tuberculous patients to be built on Mt. Scopus in Jerusalem. The new 200-bed unit will be a part of the Hadassah Medical Center, which is open to all races and creeds.

Dr. W. G. Milholland spoke recently on Radiation Therapy before a meeting of the Central California Society of X-Ray Technicians at St. Agnes Hospital, Fresno.

LOS ANGELES

"Welcome and respected in homes throughout the world, doctors can do much to promote international good will," said **Dr. Herbert Acuff,** president of the United States Chapter of the International College of Surgeons, at a recent meeting at the University Club in Los Angeles. Speaking before nearly 100 surgeons, all members of the Southern California Guild of the International College, Dr. Acuff stressed the necessity for the college to be a medium of international amity as well as a world-wide exchange of medical and surgical techniques.

Dr. Acuff is chief of Staff of St. Mary's Hospital, Knoxville, Tennessee, and is president of the Southeastern Surgical Congress.

Dr. Carl Rusche, president of the Southern California Guild of the College, presided at the meeting.

Dr. Kurt F. Behne, Los Angeles, former member of the California Medical Association, who died in January, 1944, has been awarded the Selective Service Medal posthumously by Congressional action. The medal and citation, which were presented to his wife, Dr. Dorothea Behne, were awarded to Dr. Behne for devoting a major portion of his time from 1941 until his death to serving without pay as an examining physician at a local draft board.

Dr. Louis E. Martin has been elected president of the **Los Angeles County Tuberculosis and Health Association.** He succeeds Dr. Reginald H. Smart, who became first vice-president.

Dr. E. T. Remmen spoke recently on the subject of "The Proposed State Compulsory Health Insurance Plan" at a meeting of the Wilshire-Kiwanis at Chapman Park Hotel, Los Angeles. Dr. Remmen is president of Los Angeles County Medical Association.

Dr. John N. Osburn, former chief of the eye, ear, nose and throat department of the Santa Fe Coast Lines Hospital, Los Angeles, has been appointed chief surgeon at the same institution. Dr. Osburn, who has been associated with the hospital for 27 years, succeeds **Dr. R. W. Miller.**

Dr. Louis B. Shine, who just finished serving four and one-half years in the Army Medical Corps, has opened offices at 14472 Dickens St., **Sherman Oaks.** A graduate of the University of Iowa Medical School, Dr. Shine was on the staffs of Bellevue Hospital and Lincoln Memorial Hospital in New York City before he entered the army.

SAN FRANCISCO

Dr. J. C. Geiger, Public Health Director, received the Public Relations Club's first annual Achievement Award at a Fairmont Hotel luncheon, May 22. Robert Gordon Sproul, University of California president, made the presentation. Dr. Geiger was chosen for the award because of his contributions to the civic betterment of San Francisco.

Dr. Robert S. Stone, Professor of Radiology at the University of California Medical School, San Francisco, who was closely associated with atomic research during World War II, was selected to deliver the **Janeway lecture** at the 29th annual meeting of the American Radium Society which was held in Atlantic City, June 9 and 10. Dr. Stone, whose lecture was entitled "Neutron Therapy and Specific Ionization," was awarded the Janeway medal.

The Janeway lecturer is selected annually by a committee of six members of the American Radium Society, which is composed of many of the country's leading cancer specialists. The award was established in 1933 in memory of Henry Harrington Janeway for his pioneer work in the field of radium therapy.

Dr. Leo Eloesser, San Francisco surgeon, was honored guest recently at a dinner sponsored by the Women's Division of the Spanish Refugee Appeal. Dr. Eloesser headed the American Mobile Medical Unit during the Spanish civil war and for the past two years was in charge of UNRRA's medical teaching program in China.

SAN MATEO

Dr. Carl L. Hoag was reelected president of the **San Mateo County Blood Bank** at the annual meeting of trustees, and Dr. R. D. Howe of Redwood City was named to the board of trustees, replacing Dr. H. C. Moffatt of Woodside, who resigned.

In his annual report Dr. Hoag stated that during the 12 months ended March 31, donors contributed 2,147 pints of blood, making a total of 16,439 pints since inception of the bank. During the past year 1,109 new donors were added to the bank's list, making a total of 7,399 donors since the bank started, Dr. Hoag said.

Dr. Olin Holmes of San Mateo was elected president of the San Mateo County Board of Health when the advisory group held its organization meeting recently at Mills Memorial Hospital. Dr. Holmes will serve for two years.

SOLANO

The Pacific Coast section of the **American College of Surgeons** recently held a two-day conference in Vallejo with Surgeons from five western states in attendance. Scientific papers were read and discussed during the meeting. Among the speakers were Malcolm T. MacEachern, associate director of the American College of Surgeons; Admiral Lucius W. Johnson, San Diego, and George H. Miller, director of the ACS education bureau.

YUBA

Dr. James F. Hamilton, now affiliated with the Stanford University-San Francisco city and county hospital unit, will become official Yuba county physician beginning July 1, 1947. Dr. Hamilton, who is a graduate of the Tennessee University Medical School, will replace **Dr. Paul C. Cress,** who had been engaged on a temporary basis by the board.

GENERAL

An additional year of surgical training will be required of all candidates applying after January 1, 1951, for eligibility to take Part I of the examination of the **American Board of Orthopaedic Surgery,** according to announcement by the Board. The change was made by adding to the rules for general qualification a section providing that an applicant "must have spent a year on an approved surgical residency subsequent to the completion of his internship."

Two new medical journals were born recently in Los Angeles, **The Annals of Western Medicine and Surgery** in March, and **Medical Arts and Sciences** in April.

The former is a publication of the Los Angeles County Medical Association under the editorship of **Dr. E. T. Remmen.** According to editorial announcement, the attractively styled and printed new journal is "intended to be a medium in which the work of medical men and women of this area can be presented." Published monthly, it is distributed to members of the association, to medical libraries, and to state medical associations. It is available to others by subscription.

Medical Arts and Sciences, a quarterly, is to be published for the College of Medical Evangelists by the Review and Herald Publishing Association in Washington, D. C. Announcement of the new publication says that it will "contain reports of original work done by members of the medical college staff, case reports, clinical studies, and basic research in the various fields of medicine. Contributions will be solicited, also, from members of the alumni practicing throughout the world."

Dr. Walter E. Macpherson is editor, and the editorial office and control will be at the medical college. Present plan is to send Medical Arts and Sciences "to graduates of the medical college, the teaching personnel, the medical students, various medical libraries, and also to graduates of the school of dietetics and the schools of nursing."

A new 3-cent postage stamp honoring the doctors of America had its first sale at Atlantic City, N. J., on June 9.

The Colorado Rheumatic Fever Library has been established at the University of Colorado School of Medicine in response to the great need for assembling in one place all that has been written on the subject of rheumatic fever. Announcing plans for development of the library, Dr. Ward Darley, dean of the school of medicine, said that it is to contain reprints or copies of every article that has been written on the subject. Efforts will be made to **collect all the reprints** available, and when they cannot be obtained, photostatic or typewritten copies of desired articles will be made. Publications from countries outside the United States will be collected in a similar manner and where necessary will be translated. This material will be cross-indexed and assembled in bound volumes by years. The collection will ultimately be made available to all workers in the field of rheumatic fever in the form of a photostat and an abstract service.

A series of new, world-wide **abstract journals** publishing abstracts of the world's literature in the fields of research and clinical medicine is announced by Excerpta Medical, Inc., of Amsterdam. All abstracts will be published in English and the aim will be to abstract every article appearing in every medical journal of importance throughout the world. These periodicals will replace the old German Zentralblatter and Berichte series, which will not be reviewed. Each journal will be issued monthly and subscription is by the year. Editorial boards are composed of authorities from many countries, including liberal representation from the United States.

The following subjects are covered, each by a journal: Anatomy, Anthropology, Embryology and Histology; Physiology, Biochemistry and Pharmacology; Endocrinology; Public Health, Social, and Industrial Medicine; General Pathology, Pathological Anatomy and Bacteriology; Internal Medicine; Pediatrics; Neurology and Psychiatry; Surgery; Obstetrics and Gynaecology; Oto-, Rhino-Laryngology; Ophthalmology; Dermatology and Venereology; Radiology; Tuberculosis.

The Williams & Wilkins Company, Baltimore 2, Maryland, is agent for the United States, Canada, and Central America.

Dr. Selman A. Waksman, Microbiologist at the New Jersey Agricultural Experiment Station, New Brunswick, New Jersey, was presented with the $5,000 **Passano Foundation Award** at a dinner June 12 in Atlantic City.

Established in 1943 by The Williams & Wilkins Company, medical publishers, of Baltimore, Maryland, the Foundation proposes to encourage medical research, especially that which has clinical application. It has established the award as one of its activities.

Dr. Waksman received the award for his original research in the field of antibiotics culminating with his discovery of streptomycin.

Besides its immediate objective of finding a way to preserve tissue for a longer period of time than the present practical maximum of 72 hours, research being carried on at the laboratory of **The Eye-Bank for Sight Restoration,** Inc., in New York City, is extending to other ophthalmic problems whose solution might enable many now blind to see again, according to Dr. Herbert M. Katzin, who is in charge of the library.

During the past year, the Eye-Bank has granted seven **fellowships** for research and sixteen **scholarships** for its training course in the operation for the transplanting of healthy corneal tissue to blind persons who lost their sight because of corneal defects. Dr. Katzin has been developing special teaching methods to give surgeons the knowledge and skill required for this delicate operation.

Among **research projects** carried on in the Eye-Bank's laboratory are studies to improve the surgical technique of corneal grafting and to perfect photographic methods for recording purposes; development of newly discovered properties of beta radiation in treatment of corneal scars; study of the use of physiological fibrin as a substitute for sutures, and development of methods for transplantation of the vitreous.

INFORMATION

Postgraduate Courses Announced by U. C.

Five summer and fall postgraduate courses, one of them offered in cooperation with the American Academy of Allergy, have been announced by the University of California Medical School, Medical Extension. All are short courses with daytime classes and all are to be given at the University of California Medical Center, San Francisco.

The courses, in the order in which they are to be given, are:

1. Orientation Course in Clinical Allergy (offered by the American Academy of Allergy). July 7 through 11.

This course is for physicians desirous of a review of allergy. It is designed to familiarize them with the present-day status of the diagnosis and treatment of allergic conditions.

Sessions will be held daily from 9 a.m. to 5:30 p.m. Two evening roundtable discussions will be held.

Dr. Irwin C. Schumacher, Assistant Professor of Medicine, University of California Medical School, is directing the course. Outstanding members of the American Academy of Allergy from California and the eastern centers will present the lectures. Symposia will be given on the following subjects: Fundamental Considerations of Allergic Reactions; Principles of Therapy; Diagnosis of Allergic States; Pathology of Allergic States; Aeroallergens; Serologic Features and Mechanism of Allergic Reactions; Urticaria; Vascular Allergy; Allergic Rhinitis; Allergic Dermatitis; Bronchial Asthma, Nasosinal Allergy, and Allergic Dermatitis in Children; Allergic Conditions of the Eye, Central Nervous System, Gastrointestinal Tract; Psychosomatic Aspects of Allergic States.

Fee for the course will be $40, with registration limited to 150 students.

2. Course in Gynecological and Obstetrical Pathology, and in Smear Technique as it Pertains to Cancer of the Uterus, Stomach, Urinary Tract and Lungs. August 4 to 15, inclusive. Daily, 9 a.m. to 4:30 p.m.

This course is limited to 75; registrants are to furnish their own microscopes, of good quality.

Either the morning or the afternoon sessions may be taken, alone or together. It is suggested that experience with the microscope and in cancer diagnosis in general will be an essential prerequisite if one is to obtain proficiency and confidence in the judgment of the smear preparations.

The course is designed to fulfill two needs: (a) requests from physicians who wish to prepare for the American Board Examinations, and (b) requests from pathologists, cytologists, researchers, and all others who are interested in learning to use the smear technique for the diagnosis of cancer in various parts of the body.

3. Obstetrics and Gynecology. September 1 through 5. Daily, 9 a.m. to 1 p.m. and 2 to 5 p.m.
4. Otorhinolaryngology. September 8 to 12 inclusive. Daily, 8:30 to 11:30 a.m. and 1 to 5 p.m.
5. Ophthalmology. September 15 to 19 inclusive. Daily, 8:30 a.m. to 12 noon and 1:30 to 5 p.m.

Details regarding any of the courses may be obtained from Stacy R. Mettier, M.D., Head of Postgraduate Instruction, Medical Extension, University of California Medical Center, San Francisco 22.

Check of Fraud in Vet Treatment Ordered

Following reported disclosure of instances of alleged fraud in the outpatient treatment of veterans by fee-basis physicians, the Medical Director of the Veterans Administration has sent a letter dated March 13, 1947, to managers of regional offices asking that they take steps to guard against or uncover frauds in their regions. Text of the letter:

"A very few instances of fraud in the outpatient treatment of veterans by fee-basis physicians have been discovered. There are unconfirmed rumors of other instances.

"The vast majority of the physicians of the United States are scrupulously honest. The exceptions are few in number, but it is of the utmost importance, both to the Veterans Administration and the medical profession, that they be exposed. This outpatient treatment program must be kept clear of all suspicion.

"It would require a prohibitive amount of personnel to check every case referred to a fee-basis physician; and the small number of cases of fraud, which might be unearthed by such a gigantic undertaking, would be out of all proportion to the effort. However, it does appear necessary that spot checks be made constantly. These may discover an occasional instance of fraud; but, in any event, the fact that they are being made may deter the few dishonest physicians from engaging in sharp practices.

"I desire that such spot checks be made. The scope of these investigations will depend entirely upon the amount of personnel at your disposal, because no raising of present ceilings can be granted. However, this would appear to be a matter in which investigative agencies of the Veterans Administration, other than those at the disposal of the Department of Medicine and Surgery, could well assist.

"As to what action to take in cases of demonstrated fraud, it is a question for the Deputy Administrator to decide as to whether criminal action should be instituted. Insofar as the Department of Medicine and Surgery is concerned, I desire that the facts be reported at once to the local medical society of which the guilty physician is a member; and that the facts be also reported to me. I shall make every effort to drive guilty physicians from organized medicine."

BOOK REVIEWS

RADICAL SURGERY IN ADVANCED ABDOMINAL CANCER. By Alexander Brunschwig, M.D., Professor of Surgery, University of Chicago. The University of Chicago Press, Chicago. Price $7.50.

This is a very interesting book covering case reports of one hundred advanced abdominal malignancies. The book is well illustrated and every page of printed matter is of extreme value. Many important points are stressed, such as, "In malignant conditions the basal metabolism rate may be elevated." "Co-incidental conditions such as cardio-renal pathology are not necessarily contra-indications to operation," "The present knowledge of the etiology, prevention and treatment of shock made extensive operation procedure less hazardous." "Glisson's capsule is a barrier to direct extension of carcinoma," "Many nodules in the liver are not necessarily metastatic carcinoma; many are fibromas, scerous angiomas or cysts."

The first chapter deals very effectively with the historical resume of the important advances in abdominal surgery.

The chapter on supportive treatment is brief and to the point.

This book may be used as a reference book for surgeons undertaking extensive surgery for the relief of abdominal malignancy. The technique of gastric resection and other extensive resections in the abdomen is covered thoroughly and the important points and dangers are well stressed. The necessity of teamwork, not only of the medical group but the groups treating shock, and the importance of multiple transfusion are covered in a very practical way.

The reviewer's only criticism of the book is of the title. The word "radical" these days has so many implications that it would seem to be much more appropriate to have some such title as "Extensive Surgery in Abdominal Cancer." This book is recommended to any surgeon doing abdominal resection, but many of the points stressed are helpful to those performing the ordinary surgery in the abdominal cavity.

One point which was not stressed in the book which undoubtedly will be covered in the next edition is the use of gelatin foam in the control of hemorrhage.

* * *

X-RAY DIFFRACTION STUDIES IN BIOLOGY AND MEDICINE. By Mona Spiegel-Adolf, M.D., Professor of Colloid Chemistry and Head of the Department of Colloid Chemistry, Temple University School of Medicine, and George C. Henny, M.S., M.D., Professor of Medical Physics and Head of the Department of Physics, Temple University School of Medicine. Published 1947. Grune & Stratton, Inc., New York City. Price $5.50.

This monograph of some 250 pages is an excellent summary of recent progress in biological research with x-ray diffraction equipment. The authors are attached to Temple University School of Medicine. After fairly brief introductory chapters on the theory and technique of x-ray diffraction, there are adequate sections on the interpretation of diffraction patterns, and summaries of diffraction studies on the following materials: carbohydrates, amino-acids, proteins, muscle, fats, nerves and various skeletal structures. There is a list of references and a subject index.

There are 86 illustrations, most of them with excellent legends. The book is printed on excellent quality paper and has a very attractive cover. It can be recommended to students of molecular research, and to all biological workers who use or might use x-ray diffraction technique in molecular analysis.

* * *

MODERN DERMATOLOGY AND SYPHILOLOGY. By S. William Becker, M.D., Clinical Professor of Dermatology, University of Chicago, and Maximilian E. Obermayer, M.D., Clinical Professor and Chairman of the Department of Dermatology, University of Southern California. J. B. Lippincott Company, Philadelphia. 1947. Price $18.00.

This book of 983 pages is a second edition, the original text having been published in 1940. The present edition is beautifully bound on glazed heavy paper which makes the book rather large and heavy. The subject matter, however, is presented in a clear-cut and concise manner.

The subjects to be discussed in each chapter are listed in outline form. Each chapter begins with an introductory discussion of the subject matter contained in the chapter. The authors term this "orientation" in which they give a brief explanation for including the diseases under discussion under one heading. This "orientation" includes the personal views of the authors and is very valuable for teaching purposes. The arrangement of the book is excellent throughout and can be recommended as a guide for the presentation of a course in dermatology for undergraduate students.

A careful perusal of its pages indicates that much of the material used emanates from the authors' own investigative work and clinical experience. The current literature on dermatology and syphilology is well covered up to 1945. Special articles pertaining to the subject presented in each chapter are listed at the end of the chapter. No attempt is made to give a complete bibliography.

Errors in spelling and wording were not observed although in Chapter 30 the term Mycosis Fungoides is obviously mistakenly used for the word "orientation."

Many of the chapters are excellent, especially those dealing with industrial dermatoses, dermatologic allergy, neurodermatitis, disturbances of pigmentation, diseases due to fungi, filterable viruses, insects, leprosy, and many others.

From the standpoint of postgraduate teaching the book has many of the faults to which textbooks are subject in general. It is no longer modern in a true sense by the time the work of assembling the subject matter for printing has been completed. An example of this is found in the chapter dealing with urticaria which, though very well done, makes

no mention of the use of benadryl nor pyribenzamine in the treatment of urticaria.

Sufficient place is not given in the book for a discussion of the histopathology of skin diseases. An increase in the number and quality of microphotographs would add to the value of such discussions. A chapter on x-ray and radium therapy also seems desirable.

The authors indicate that their book is designed mainly as a textbook for undergraduate students and as a practical aid for the general practitioner. Both of these aims are admirably accomplished.

* * *

PROGRESS IN GYNECOLOGY. Edited by Joe V. Meigs, M.D., Clinical Professor of Gynecology, Harvard Medical School; Chief of the Vincent Memorial Hospital, the Gynecological Service of the Massachusetts General Hospital; Surgeon, Pondville Hospital; Gynecologist, Palmer Memorial Hospital, and Somers H. Sturgis, M.D., Chief, the Vincent Memorial Hospital Laboratory; Assistant Surgeon, Massachusetts General Hospital. Grune & Stratton, Inc., New York. 1946. Price $7.50.

The book reviewer is in a unique position, in that he is expected not only to be appreciative, but the public also expects him to be discriminatory. This review will attempt to fulfill both of these responsibilities.

First off, one can say of the volume entitled "Progress in Gynecology" that it is well conceived. There is a real need for such a volume, and we hope that it may reappear at appropriate intervals. For the sake of those who are interested in the woman as a whole, which all gynecologists should be, one could wish that the childbearing function with its special features and interests could have been reflected in the title and the content. Gynecology can no longer neglect reproduction. To do so is to consider the plant only and not its real function, which is equally to perpetuate. But such omissions are characteristic of a few centers of learning, and this volume, fine as it is, goes along with an outmoded trend. True, there are fine chapters on infertility and sterility as well as habitual abortion, but these are the characteristic American gynecologist's obeisance to necessary office practice, which inevitably involves pregnancy. One wonders when we will be able to train men to be equally wise and interested in reproduction as well as in the non-reproductive functions of the adult woman.

Having engaged in these animadversions, some of which are admittedly philosophical, we should turn to a consideration of the virtues of this fine volume.

In the first place, each section is written by a person well equipped to express an opinion upon the subject concerned. As this is in essence a progress report, one must tolerate brevity, which is evident in each chapter. This characteristic makes it valuable from the point of view of conversant gynecologists, as well as those well read general surgeons who may thumb its pages, and we hope there may be many.

After careful appraisal one may admit that perhaps this is a unique volume, in that even with its brief consideration of a strictly gynecological sphere, it not only covers recent progress, but it also ties in familiarly with the past. In other words, it is a progress report, but it is also a connecting link. In this achievement its editors are to be congratulated, for this is really good teaching.

It would be a mistake to analyze too closely, because the various chapters have been written by different individuals, some of whom have gone into considerable helpful detail while others have sketched a brief outline. This latter statement is so true that it may be that brevity has been considered to be too much of a virtue. However, it must be admitted that after careful perusal of many of the sections one cannot but wonder why the author could not have been more candid and have stated more clearly what he thought with regard to vaginal prolapse, or cervicitis, or lymphadenectomy, and so on.

From the foregoing it is clear that the reviewer is beset by mixed emotions, that he considers this innovation in gynecological literature an interesting and valuable contribution, but is lost in wondering just what group in the medical profession is to be profited most by its perusal. The general idea is admirable, and many sections are helpful —but others are not so useful. It may be that this is to be expected of a progress report. In all fairness we must say that this contribution is worthy of mature consideration. It will meet the needs of many who are seeking gynecological support.

* * *

PENICILLIN IN SYPHILIS. By Dr. J. Earle Moore, Associate Professor of Medicine and Adjunct Professor of Public Health Administration, The Johns Hopkins University; Physician-in-Charge Syphilis Division of the Medical Clinic and Visiting Physician, The Johns Hopkins Hospital; Chairman, Syphilis Study Section, National Institute of Health, United States Public Health Service; Chairman, Subcommittee on Venereal Diseases, National Research Council. Published February 1, 1947, by Charles C. Thomas, Springfield, Illinois. Price $5.00.

This is the first book to appear in which the special problems of antisyphilitic therapy are considered in detail in relation to penicillin. It is very much worth while, as it comes at a time when the general literature is extremely confusing. Dr. Moore presents the subject clearly and concisely, and one is amazed that he is able to fill 300 pages without the inclusion of any irrelevant material. The result is a clear and logical analysis of the position that penicillin holds in antisyphilitic therapy today with predictions as to the probable direction of future investigation.

Nearly half the book is devoted to the chemistry and pharmacology of penicillin and the results of its use in experimental syphilis in animals. One should not pass over this part of the book to get at the clinical material, for to do so is to miss a number of facts that make some of the curious results of treatment in human syphilis more or less comprehensible.

The greater part of the clinical section is devoted to the use of penicillin in early syphilis and in neurosyphilis, since it has been used extensively and critically only in these stages of the disease. The most complete and systematic investigation of the results of penicillin therapy has been in connection with early syphilis. In spite of grave difficulties

in evaluation, there are presented some fairly well established principles of therapy together with the results of the clinical studies on which they are based. No extensive data are available except in the use of soluble penicillin, but it is thought by Dr. Moore that the results of penicillin in peanut oil-beeswax will probably be satisfactory if a large enough dose is used over a long period of time.

In neurosyphilis, the problems of proper evaluation are even greater and there is greater divergence of opinion among the various investigators. It is agreed, however, that penicillin does have a definite value in producing both serologic and clinical improvement in many patients with various types of neurosyphilis. In parenchymatous neurosyphilis, particularly in paresis and taboparesis, penicillin should be used as an adjunct to fever therapy rather than in place of it.

In latent syphilis, penicillin is not recommended and it certainly is not indicated when there is only a persistently positive Wassermann in an already adequately treated patient. Wassermann fastness in latent syphilis, provided the spinal fluid is negative, is without clinical significance and should be disregarded.

In other late manifestations of syphilis, penicillin has been used to some extent with some success but no special advantage has been demonstrated, except in the prevention of congenital syphilis. When used in pregnant syphilitic women, it has been completely safe and has reduced the transmission of the infection to the infant almost to the vanishing point.

* * *

SUPPLEMENT ON STATE MEDICINE. By J. Weston Walch. Published January 1, 1947. J. Weston Walch, Publisher, Portland, Maine.

This slender 52-page item is a continuation of the "Complete Handbook On State Medicine" published by the same gentleman in 1946. It attempts to list in abstract a remarkable series of journals and documents for and against State medicine. Its closing pages consist of a useful "Who's-Who on State Medicine."

The spelling of some of the names is not always correct. The type is readable. The booklet is recommended to speakers and writers dealing with this chronic and deplorable problem.

* * *

A SYNOPSIS OF SURGICAL ANATOMY. By Alexander Lee McGregor, M.Ch. (Edin.), F.R.C.S. (Eng.), Surgeon, Johannesburg General Hospital, Lecturer on Surgical Anatomy, University of Witwatersrand. With a foreword by Sir Harold J. Stiles, K.B.E., F.R.C.S. (Edin.). Sixth Edition. With 699 illustrations by Dr E. A. Thomas. 1946. The Williams & Wilkins Company, Baltimore.

A fundamental knowledge of anatomy is essential to the surgeon who wishes to operate with skill, dexterity, gentleness, and unhurried ease. This fundamental knowledge of anatomy does not include a detailed mastery of a galaxy of impractical anatomical facts but rather requires an understanding of certain embryological and anatomical data directly related to clinical surgery. The choice of material which will be most valuable to the surgeon must be carefully selected, and its presentation must clarify clinical problems and surgical approaches.

"A Synopsis of Surgical Anatomy" is written by a general surgeon now in active practice, but one who taught anatomy in the dissecting-room as a foundation for a surgical career. The choice of subject matter is excellent; the correlation between anatomy and clinical surgery is admirably achieved. The book is written in synopsis form, so that desired information is immediately available without fruitless pages of description. The illustrations are diagramatic, adequate, and all prepared by Dr. E. A. Thomas. The book is pocket-sized and only 670 pages in length. Classical references are given as footnotes for each section, and the contents of the book are presented as separate essays, each being complete in itself. The book can be used as a handy reference.

It is written in two parts. Part 1 is an outline of normal anatomy of organs susceptible to surgical approach and therapy. Potential surgical complications are discussed, and brief notes of clinical signs are given. Anatomical relationships, surgical errors and safeguards are emphasized. Part 2 deals with the anatomy of common developmental errors, functional anatomy of bones and joints, and the anatomy of clinical signs and certain diseases, such as backache, hand infections, abscesses. It includes the anatomical basis and aims of operations on the sympathetic nervous system. The anatomy of surgical procedures and surgical approaches to all organs are described.

This book will be very valuable to the surgeon who wishes quickly to review the anatomy of a particular area. It contains much more information than the "Military Surgical Manual" on anatomy but its illustrations do not compare with the latter book. It is more concise and factual than Callendar's "Surgical Anatomy," yields an adequate amount of practical information more quickly, but is not of the detailed or masterful scope of the latter work either in its illustrations or printed material. This book can be recommended as a good compendium on surgical anatomy for student and surgeon.

* * *

APHASIA: A GUIDE TO RETRAINING. By Captain Louis Granich, U. S. Army Medical Administration Corps. 108 pages, 1947. Grune & Stratton, Inc., New York. Price $2.75.

This compact little volume is the work of a clinical psychologist. It is based upon the author's experience with about three hundred soldiers suffering from injuries to the brain sustained during The Second World War. No effort has been made to separate purely aphasic defects from the agnosias and apraxias. Emphasis is laid on the importance of associated physical handicaps such as epilepsy, hemiplegia and hemianopia, reactive phenomena, including irritability, depression and obsessive-compulsive trends, and an understanding of the catastrophic reaction "to certain experiences of failure."

The methods of analysis used in determining the

particular disabilities of the individuals studied are succinctly set forth. Each defect is given a group of code letters which are thereafter used to the detriment of the text in place of the familiar terms for which they stand. Techniques of retraining are described and certain time-worn and out-moded rituals are debunked. In the detailed descriptions of the retraining of eight selective cases the results of the analysis of each case, the therapeutic methods employed, the problems and difficulties encountered, and the need for diversity and versatility of approach and management are exemplified. The suggestion of the author's associate, Pangle, that patients suffering from hemianopic defects be advised to read from above downward instead of from left to right is worthy of dissemination to all who are likely to meet this sort of disability in practice.

Supported by a good bibliography and a table of contents so complete as to make an index almost unnecessary, this book will be of substantial value to all who are interested in extending the boundaries of knowledge concerning the language functions, and especially to neurologists, psychiatrists and psychologists who may engage in attempts to rehabilitate aphasic patients.

MEDICAL JURISPRUDENCE

NEGLIGENCE: RES IPSA LOQUITUR

Peart, Baraty & Hassard, *San Francisco*

Recently (79 ACA 374, April 25, 1947) a patient brought an action against a hospital and attending physician for damages for personal injuries alleged to have been suffered in a surgical operation. The facts giving rise to the case were as follows: Plaintiff was being treated by the defendant physician and surgeon for the purpose of having a wart removed from her nose. At the trial the physician testified that plaintiff had complained to him of dizziness, headaches, hot flashes and of pains in her legs; that he concluded from his examination and diagonsis that the cause of her complaints was that plaintiff was going through the menopause; that he gave her a hormone injection and prescribed various medicines to be taken orally for this condition; that he also discovered that she had infected tonsils; that he recommended their removal, and arrangements were made for the operation to be performed at the defendant hospital.

The physician testified that he planned to remove the wart first and that during this portion of the operation the patient was anesthetized with nitrous oxide and oxygen, a noncombustible, nonexplosive and noninflammable gas; that he then intended to remove the tonsils after anesthetizing the patient with ether, an inflammable and explosive gas. It was admitted that containers of both gases were in the operating room. The physician testified that during the operation he removed the wart with an electric needle and after he had finished removing the wart and was cauterizing the wound with the electric needle there was a "flash" and a "pop" about six inches above the plaintiff's face; that as a result of the accident the plaintiff suffered contusions to her left cheek and left eye and bled profusely from the nose and mouth.

Because of these hemorrhages the doctor did not remove the tonsils but immediately called an eye specialist to examine an injured eye. The anesthetist testified that no ether was used at all in the operation, that only nitrous oxide and oxygen were used and at the time of the "flash" and "pop" no anesthetic at all was being used. Neither the doctor nor the anesthetist could account for the "flash" and the "pop" that caused the injuries. The case was tried before a jury and a verdict rendered in favor of all defendants.

The major contention of the plaintiff was that on the evidence the trial court should have granted her motion for a directed verdict. This contention was based on the argument that the doctrine of *res ipsa loquitur* applies to this case, under that doctrine, the burden cast on the defendants was to explain the cause of the accident, and, the defendants having failed to offer a satisfactory explanation, as a matter of law, the trial court should have directed a verdict for plaintiff. Plaintiffs argued that the defendants did not present sufficient evidence to take the case to the jury, but the defendants must offer evidence as to how the accident occurred.

The District Court of Appeal held that the doctrine of *res ipsa loquitur* was clearly applicable to this case. After discussion of the procedural results of an application of the *res ipsa loquitur* doctrine the court held that in California the doctrine creates an inference or presumption of negligence which has the legal effect of establishing a prima facie case. "Under this theory the burden of proof is not on defendant and the evidence of defendant need not preponderate over the evidence created by the inference." The court stated: "In the present case the defendants did go forward with the evidence by testimony of what they actually did, and from that testimony it is a permissible inference that they exercised due care. Inasmuch as in California the doctrine of *res ipsa loquitur* merely establishes a prima facie case, it would seem to follow inevitably that when evidence of due care has been offered by defendants it becomes a jury question as to whether the inference of negligence created by the doctrine has been dispelled."

Th court therefore affirmed the judgment in favor of all defendants.

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ORIGINAL ARTICLES

THE MOST UNPHYSIOLOGICAL PERIOD OF LIFE
Edward B. Shaw, San Francisco 1

TYPHUS FEVER IN THE SECOND WORLD WAR, J. C. Snyder, New York 3

IMMEDIATE MANAGEMENT OF AMPUTATIONS OF THE HANDS, FEET AND DIGITS, Gerald B. O'Connor, San Francisco 11

PRIMARY TREATMENT OF OPEN WOUNDS OF THE HAND
John E. Kirkpatrick, San Francisco 15

INFECTION OF THE HAND, WITH EVOLUTION OF CHEMOTHERAPY
Joseph H. Boyes, Los Angeles 18

AMPUTATIONS OF THE HAND AND FINGERS, Vernon P. Thompson, Los Angeles 20

JOINTS OF THE HAND AND FINGERS—THEIR STIFFNESS, SPLINTING AND SURGERY, Donald R. Pratt, Menlo Park 22

USE OF THE BLANCHARD MECHANOTHERAPIST IN TREATING POSTOPERATIVE ATELECTASIS, O. Leonard Huddleston, Los Angeles 25

FATAL MYOCARDITIS WITH COMPLETE HEART BLOCK FROM DIPHTHERIA
R. A. Kocher, Carmel 27

MEDICAL PROGRESS: RECENT PROGRESS IN PEDIATRICS
Peter Cchen, San Francisco 30

EDITORIALS 35
CLINICAL CONFERENCE 38
CALIFORNIA MEDICAL ASSOCIATION 45
NEWS AND NOTES 47
INFORMATION 50
LETTERS TO THE EDITOR 52
BOOK REVIEWS 54
MEDICAL JURISPRUDENCE 56
BOARD OF MEDICAL EXAMINERS Adv. page 26
ANTISPASMODICS Adv. page 10

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CALIFORNIA MEDICAL ASSOCIATION
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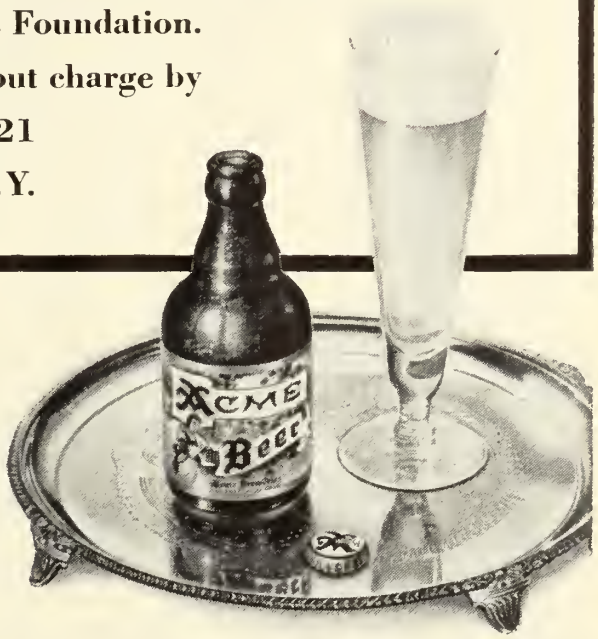
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In addition to the elected district and at-large Councilors, the Council has as ex-officio members the following general officers
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Second District—Jay J. Crane (1948), 1921 Wilshire Boulevard, Los Angeles 5. Los Angeles County.

Third District—Harry E. Henderson (1949), 1214 State Street, Santa Barbara. Inyo, Kern, Mono, San Luis Obispo, Santa Barbara and Ventura Counties.

Fourth District—Axcel E. Anderson (1947), Medical Group Building, 1759 Fulton Street, Fresno. Calaveras, Fresno, Kings, Madera, Mariposa, Merced, San Joaquin, Stanislaus, Tulare and Tuolumne Counties.

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Sixth District—Edwin L. Bruck (1949), 384 Post Street, San Francisco 2. San Francisco County.

Seventh District—Lloyd E. Kindall (1947), 400 Twenyt-ninth Street, Oakland. Alameda and Contra Costa Counties.

Eighth District — Frank A. MacDonald (1948), 822 Medico-Dental Building, 1127 Eleventh Street, Sacramento 14. Alpine, Amador, Butte, Colusa, Eldorado, Glenn, Lassen, Modoc, Nevada, Placer, Plumas, Sacramento, Shasta, Sierra, Sutter, Tehama, Yolo and Yuba Counties.

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E. Earl Moody (1947), 829 South Alvarado Street, Los Angeles.
C. V. Thompson (1949), 125 South Crescent Street, Lodi.
Louis J. Regan (1949), 6777 Hollywood Boulevard, Los Angeles.

Standing Committees

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The President, the President-Elect, the Speaker of the House of Delegates, the Chairman of the Council, the Chairman of the Auditing Committee, The Secretary-Treasurer (ex officio), and the Editor (ex officio).

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E. T. Remmen	Glendale	1949
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ROSTER OF COUNTY MEDICAL SOCIETIES, CALIFORNIA MEDICAL ASSOCIATION

(County society secretaries are requested to notify "California Medicine" promptly when changes are indicated in their roster information.)

ALAMEDA County Medical Association
364 14th Street, Oakland 12
President, Theodore C. Lawson, 3135 Webster Street, Oakland 9.
Secretary, Dorothy M. Allen, 2923 Webster Street, Oakland 9.
Meeting, *Third Monday, 8:15 p. m., Hunter Hall, Oakland.*

BUTTE-GLENN County Medical Society
President, J. G. Hepplewhite, Chico
Secretary, J. O. Chiapella, 131 Broadway, Chico.
Meeting, *Second Thursday.*

CONTRA COSTA County Medical Society
President, H. W. McNerney, 2600 MacDonald Avenue, Richmond
Secretary, George D. Husser, 322 Twenty-third Street, Richmond.
Meeting, *Second Tuesday, 8:00 p. m.*

FRESNO County Medical Society
President, E. A. Patterson, P. O. Box 1908, Fresno.
Secretary, William N. Knudsen, 701 T.W. Patterson Building, Fresno.
Meeting, *First Tuesday, University-Sequoia Club, Fresno.*

HUMBOLDT County Medical Society
President, Walter Dolfini, 539 G Street, Eureka.
Secretary, Wayne P. McKee, Ferndale.
Meeting, *First Thursday.*

IMPERIAL County Medical Society
President, Charles Cutshaw, Brawley.
Secretary, George Cole, Brawley.
Meeting, *Third Tuesday, 7:00 p. m., Barbara Worth Hotel, El Centro.*

INYO-MONO County Medical Society
President, Walter L. Wilson, 108 N. Main, Bishop.
Secretary, Lloyd S. Bamhauer, Bishop.
Meeting, *Fourth Wednesday, except December, January, February.*

KERN County Medical Society
President, William H. Macdonald, 2103 18th Street, Bakersfield.
Secretary, Frederick O. Wynia, 354 Haberfelde Building, Bakersfield.
Meeting, *Third Tuesday, 7:30 p. m., Stockdale Country Club, except June, July, August.*

KINGS County Medical Society
President, Lionel W. Sorenson, 1118 Whitley Avenue, Corcoran.
Secretary, William F. Chamlee, Van Sicklen Building, Hanford.
Meeting, *Second Monday, 8:00 p. m., Legion Hall, Hanford.*

LASSEN-PLUMAS-MODOC County Medical Society
President, Wilbur C. Batson, Greenville.
Secretary, John Paul McKenney, Alturas.
Meeting, *On Call.*

LOS ANGELES County Medical Association
1925 Wilshire Boulevard, Los Angeles 5
President, E. T. Remmen, 429 North Orange, Glendale 3.
Secretary, Carl L. Mulfinger, 1052 West Sixth Street, Los Angeles 14.
Meeting, *First and Third Thursday, 1925 Wilshire Boulevard, Los Angeles.*

MARIN County Medical Society
President, Lloyd G. Tyler, 1010 B Street, San Rafael.
Secretary, Carl W. Clark, 1010 B Street, San Rafael.
Meeting, *Fourth Thursday, 7:00 p. m., Travelers Inn, San Rafael.*

MENDOCINO-LAKE County Medical Society
President, J. E. Gardner, 215 W Standley Street, Ukiah.
Secretary, E. C. Bennett, Ukiah.

MERCED County Medical Society
President, E. R. Fountain, Merced.
Secretary, C. C. Fitzgibbon, Shaffer Building, Merced.
Meeting, *Third Thursday, Hotel Tioga, Merced.*

MONTEREY County Medical Society
President, A. L. Wessels, 11 Maple Street, Salinas.
Secretary, F. H. Smith, Salinas National Bank Building, Salinas.
Meeting, *First Thursday.*

NAPA County Medical Society
President, Charles H. Bulson, 1203 Seminary Street, Napa.
Secretary, M. M. Booth, Bruck Building, St. Helena.
Meeting, *First Wednesday.*

ORANGE County Medical Association
President, John Montanus, Rt. 1, Box 587A, Santa Ana.
Secretary, Llewellyn E. Wilson, 502 Bank of America Building, Anaheim.
Meeting, *First Tuesday, 7:00 p. m., Windsor Cafe, Santa Ana.*

PLACER - NEVADA - SIERRA County Medical Society
President, George A. Foster, Grass Valley.
Secretary, Vernon W. Padgett, Grass Valley.
Meeting, *At Call of President.*

RIVERSIDE County Medical Society
President, Franklyn D. Hankins, 3014 Pine Street, Riverside.
Secretary, N. K. Bear, 3655 Fourteenth Street, Riverside.
Meeting, *Second Monday, 8:00 p. m., Library, Riverside Community Hospital.*

SACRAMENTO Society for Medical Improvement
President, Dudley Saeltzer, Medico-Dental Building, Sacramento.
Secretary, Edmund E. Simpson, 1127 Eleventh Street, Sacramento 14.
Meeting, *Third Tuesday, 8:30 p. m., Auditorium, Sacramento.*

SAN BENITO County Medical Society
President, J. M. O'Donnell, Hollister.
Secretary, J. J. Haruff, Hollister.
Meeting, *At Call of President.*

SAN BERNARDINO County Medical Society
President, Marcus D. White, 201 Fallas Building, Ontario.
Secretary, Thomas F. Dempsey, 1272 E Street, San Bernardino.
Meeting, *First Tuesday, 8:00 p. m., San Bernardino County Charity Hospital.*

SAN DIEGO County Medical Society
President, A. E. Moore, 2120 Fourth Avenue, San Diego 1.
Secretary, W. H. Geistweit, Jr., 810 Medical Building, 233 A Street, San Diego, 1.
Meeting, *Second Tuesday, University Club.*

SAN FRANCISCO Medical Society
2190 Washington Street 9
President, Anthony B. Diepenbrock, 2180 Washington Street, San Francisco 9.
Secretary, Robertson Ward, 2180 Washington Street, San Francisco 9.
Meeting, *Second Tuesday, 8:15 p. m., 2180 Washington Street, San Francisco 9.*

SAN JOAQUIN County Medical Society
President, Dora Ames Lee, 110 North San Joaquin Street, Stockton 6.
Secretary, H. D. Chope, Box 111, Stockton.
Meeting, *First Thursday, 8:15 p. m., Medico-Dental Club Rooms, Stockton.*

SAN LUIS OBISPO County Medical Society
President, Edward C. Sherman, 784 Marsh Street, San Luis Obispo.
Secretary, G. D. Kelker, 1114 Marsh Street, San Luis Obispo.
Meeting, *Fourth Wednesday, 6:30 p. m., Gold Dragon Cafe, San Luis Obispo.*

SAN MATEO County Medical Society
President, Stuart Lindsay, 440 Portola, San Mateo.
Secretary, Albert G. Miller, Medical Arts Building, San Mateo.
Meeting, *Third Tuesday of each month.*

SANTA BARBARA County Medical Society
President, D. H. McNamara, Cottage Hospital, Santa Barbara.
Secretary, Douglas F. McDowell, 317 W Pueblo Street, Santa Barbara.
Meeting, *Second Monday, Cottage Hospital.*

SANTA CLARA County Medical Association
President, Joseph B. Josephson, 1541 The Alameda, San Jose 11.
Secretary, Leslie B. Magoon, 630 F. Santa Clara, San Jose 12.

SANTA CRUZ County Medical Society
President, Luther Newhall, Jr., Ocean and Broadway, Santa Cruz
Secretary, Samuel B. Randall, 84 Walnut Avenue, Santa Cruz.
Meeting, *Every second month, second Tuesday. Time and place to be announced.*

SHASTA-TRINITY County Medical Society
President, L. C. Mosher, Bieber.
Secretary, Julius M. Kehoe, Redding.
Meeting, *Second Monday.*

SISKIYOU County Medical Society
President, Richard W. Jones, 106 South Broadway, Yreka.
Secretary, F. W. Martin, Mt. Shasta.
Meeting, *Sunday on Call.*

SOLANO County Medical Society
President, H. Randall Madeley, 727 Sonoma Street, Vallejo.
Secretary, Charles H. Widenmann, 405 Georgia Street, Vallejo.
Meeting, *Second Thursday, 8:00 p. m., Casa de Vallejo; Hotel Vallejo.*

SONOMA County Medical Society
President, William Stegeman, 534 B Street, Santa Rosa.
Secretary, Raimond F. Clary, 1616 Fourth Street, Santa Rosa.
Meeting, *Second Thursday.*

STANISLAUS County Medical Society
President, Andrew Van De Pol, P. O. Box 944, Modesto.
Secretary, J. Lyle Spellman, 138 McHenry Avenue, Modesto.
Meeting, *Second Friday, 7:30 p. m., Hotel Hughson.*

TEHAMA County Medical Society
President, E. R. Wilson, Red Bluff.
Secretary, R. G. Frey, Red Bluff.
Meeting, *At Call of President.*

TULARE County Medical Society
President, Frank R. Guido, Box 1094, Visalia.
Secretary, Debora Pineles, Box 349, Visalia.

VENTURA County Medical Society
President, D. M. Clark, Foster Memorial Hospital, Ventura.
Secretary, A. A. Morrison, 34 North Ash, Ventura.

YOLO County Medical Society
President, Max Waters, Porter Building, Woodland.
Secretary, Emery Leivers, Woodland Clinic, Woodland.
Meeting, *First Wednesday.*

YUBA-SUTTER-COLUSA County Medical Society
President, Leon M. Swift, Box 244, Marysville.
Secretary, D. Ermorine Edwards, 725 Fourth Street, Marysville.
Meeting, *Second Wednesday.*

(For roster of C.M.A. committees and other organizations, see last month's issue.)

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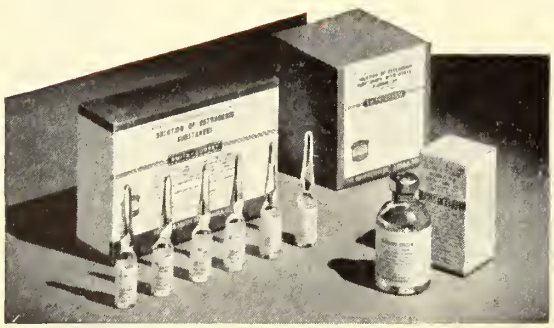
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COUNTY SOCIETIES

CHANGES IN MEMBERSHIP

New Members (123)

Fresno County (4)

Littleton, William H., *Fresno*
Sandlin, Dean C., *Fresno*
Swingle, James W., *Coalinga*
Wright, Sydney T., *Selma*

Humboldt County (2)

Portalupi, Henry C., *Arcata*
Roberts, Paul C., *Eureka*

Kern County (4)

Miller, Frederick J., *Bakersfield*
Osell, L. N., *Bakersfield*
Stewart, Charles E., Jr., *Bakersfield*
Waldman, William J., *Bakersfield*

Los Angeles County (1)

Koch, Eugene Robert, *North Hollywood*

Monterey County (4)

Cobb, Virginia M., *Carmel*
Williams, Forrest E., *Monterey*
Simard, Ernest E., *Monterey*
Stofer, Dar D., *Monterey*

Orange County (5)

Bode, Arnold G. H., *Santa Ana*
Edwards, James F., *Santa Ana*
Fowler, Kenneth, *Santa Ana*
Hannigan, Thomas E., *Santa Ana*
Henrie, Charles C., *Laguna Beach*

Riverside County (2)

Atcheson, Donald W., *Riverside*
McCullough, C. P., *Riverside*

Sacramento County (3)

Doersch, Earl A., *Sacramento*
Koepsell, Arthur A. H., *Sacramento*
Sugiyama, Henry I., *Sacramento*

San Bernardino County (13)

Berry, Isaac Murphy, *Loma Linda*
Crutcher, Luke F., *Ontario*
Frostig, Jacob P., *Patton*
Harris, Homer Hamilton, *San Bernardino*
Kline, George Q., Jr., *San Bernardino*
Lee, Pearl, *San Bernardino*
Marsh, Norman E., *San Bernardino*
Mock, Delmar T., *San Bernardino*
Morris, Harold R., *Redlands*
Pollock, R. C., *San Bernardino*
Semansky, Edward J., *Trona*
Wiggins, Finis E., *San Bernardino*
Witter, Gordon L., *Redlands*

San Diego County (10)

Cloyes, Robert D., *San Diego*
Coutts, Malcolm B., *San Diego*
Flynn, Stephen E., *Coronado*
Harris, Rowland H., *San Diego*
Henrickson, John W., *San Diego*
Knight, Leon A., *San Diego*
Lauren, George P., *San Diego*
Powell, E. R., *San Diego*
Rust, J. A., Jr., *San Diego*
Wade, Theodore E., *National City*

(Continued on Page 20)

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1. Bunn, P. A.: in Conferences on Therapy: New York State J. Med. 46:527 (March 1) 1946. 2. Gyorgy, P.: Evans, K. W.; Rose, E. K.; Perlingiera, J. G., and Elias, W. F.: Pennsylvania M. J. 49:409 (Jan.) 1946.

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New Therapy of Migraine *Now Available*

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HORTON, PETERS and BLUMENTHAL (Proc. of the Staff Meetings Mayo Clinic, July 11, 1945) state, "Our clinical experience with use of the new drug D.H.E.45 in treatment of 120 patients who had migraine, indicates that it is a safe and efficient preparation to use in aborting acute attacks of headache."

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Following operations it has also been routine with me to prescribe like amounts of this water."

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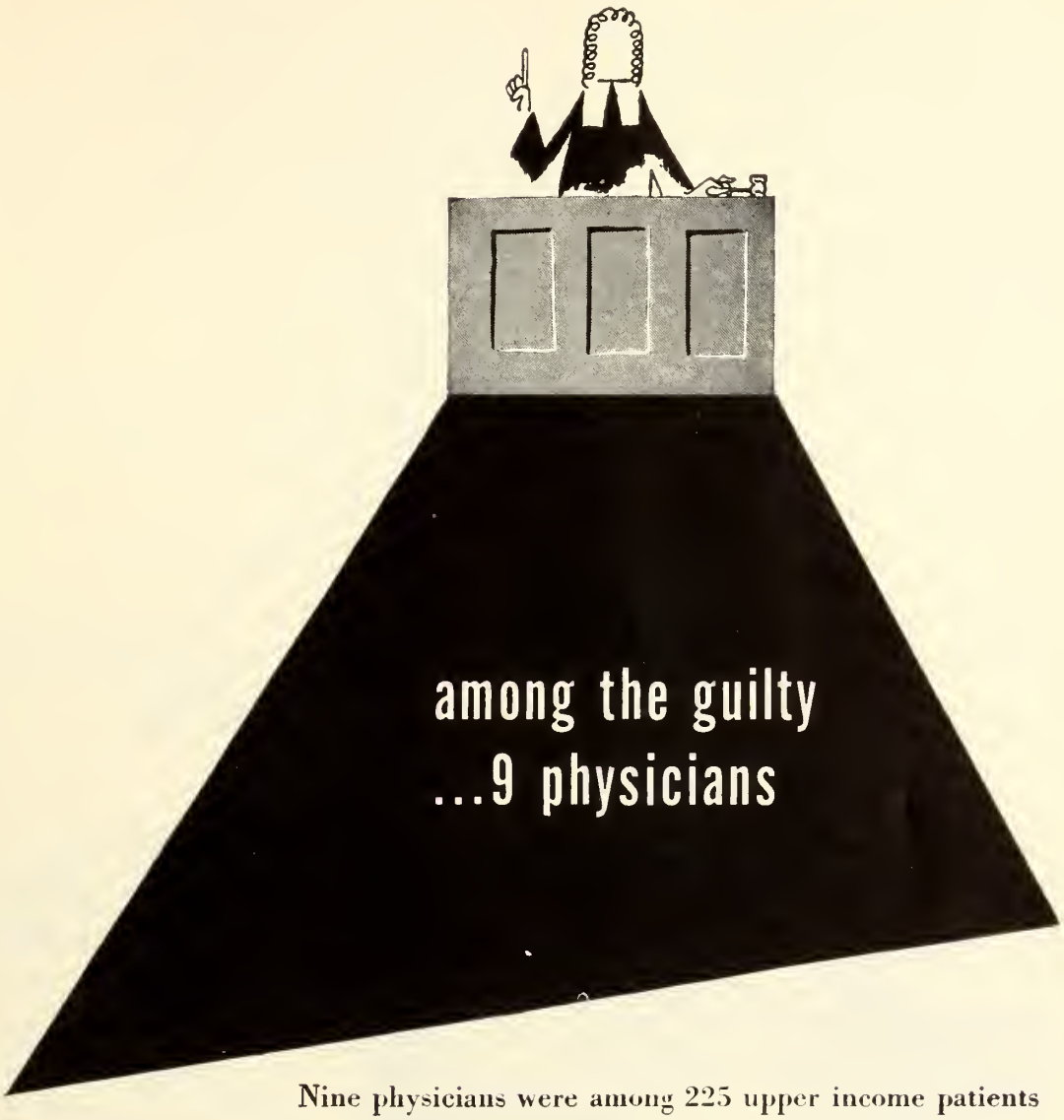
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1. New England J. Med. 228:118 (Jan. 28) 1943.
2. J. A. M. A. 129:613 (Oct. 27) 1945.

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(Continued from Page 14)

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Allen, Beulah Ream, *San Francisco*
Appleby, Ruth, *San Francisco*
Auerback, Alfred, *San Francisco*
Briggs, Barton E., *San Francisco*
Cox, Francis J., *San Francisco*
Crosbie, Robert R., *San Francisco*
Doyle, Leo W., *San Francisco*
Edwards, Walton M., *San Francisco*
Engleman, Ephraim P., *San Francisco*
Finley, Knox H., *San Francisco*
Firpo, John James, *San Francisco*
Fisher, Alfred Joseph, *San Francisco*
Gibbs, John O., *San Francisco*
Grayson, Charles E., *Sacramento*
Hahman, Paul T., *San Francisco*
Hart, Maurice D., *San Francisco*
Hearn, Paul P., *San Francisco*
Hendrickson, Harvey F., *San Francisco*
Hinman, Frank, Jr., *San Francisco*
Holmer, Paul, *San Francisco*
Hunt, Samuel P., *San Francisco*
Inderlied, Herman F., *San Francisco*
Jergesen, Floyd H., *San Francisco*
Kaufmann, Edward, Jr., *San Francisco*
Kitagawa, Kay J., *San Francisco*
Krupp, Marcus A., *San Francisco*
Kurinsky, Simon, *San Francisco*
Laddon, Robert M., *San Francisco*
Lapp, Harry D., *San Francisco*
Levin, Grant, *San Francisco*

(Continued in Back Advertising Section, Page 36)

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to combat

depression associated with

persistent pain...

Many patients suffering from persistent pain are subject to attacks of depression characterized by deep apathy and emotional exhaustion. Thus, pre-existing neurotic tendencies may be exaggerated and the pain threshold progressively lowered.

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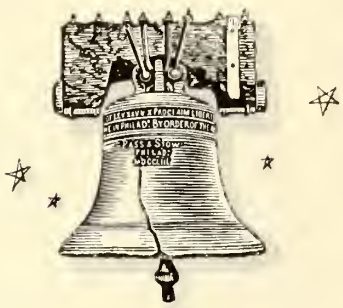
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"For what avail the plough or sail,
or land or life, if freedom fail?"

...EMERSON

★ A doctor told us, the other day, that he thinks of American freedom as a breathing organism. It can exhale benefits *for* our people no faster than it inhales contributions *from* our people.

He said:

"Take Medical Protective, for example. It wouldn't be able to offer doctors its fine service and protection against malpractice suits except for a freedom of enterprise which enabled it, first, to pioneer this specialized field—and then to broaden and perfect its service as its resources grew."

"But," he added, "companies like yours—and we doctors, too—are the *makers* of freedom as well as its *recipients:* for a government is less likely to encroach upon the liberties of a people who do not abuse them."

Through 1947, which will mark our 48th anniversary (a year for every star in the flag), our conviction that "there is no substitute for America" will remain firm.

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NO. 7 in Schenley Laboratories' continuing summary of penicillin therapy.

EMPYEMA:
treatment with PENICILLIN SCHENLEY

Penicillin exhibits a marked ability to sterilize pleural effusions whenever the infecting organisms are penicillin-sensitive. It is most effective when administered in large doses during the incipient stages. Patients should be observed carefully for at least two weeks after discontinuance of penicillin therapy to avoid possible recurrence.[1]

In the management of empyema, it is especially appropriate to apply the maxim:

give enough-soon enough-long enough

1. Poppe, J. K.: J.A.M.A. 129: 435 (Oct. 6) 1945.



PENICILLIN SCHENLEY. Treatment: Penicillin solution is injected directly into the pleural cavity after aspiration and after irrigation with sterile isotonic salt solution, if necessary. Penicillin should not be used for irrigation. The optimum dose for each injection is 50,000 to 200,000 units in a volume of solution less than the amount of fluid or pus aspirated. The frequency of injections depends on the extent, type, and severity of the infection, and the response to therapy. Treatment should be continued until after the fluid becomes sterile.



Surgical intervention is necessary if fibrin masses or loculation prevent adequate aspiration or if penicillin therapy is ineffective, as indicated by persistence of positive cultures after one week.



SYSTEMIC THERAPY. Systemic use of penicillin is indicated as a supplement to intrapleural therapy particularly where there exists an underlying active pulmonary infection or a bronchopleural fistula.

SCHENLEY LABORATORIES SERVICES:

1. Penicillin Paragraphs for January, dealing with empyema, has been mailed to all physicians.

2. A comprehensive penicillin dosage chart will be mailed to physicians on request.

SCHENLEY LABORATORIES, INC.

EXECUTIVE OFFICES: 350 FIFTH AVENUE, NEW YORK CITY

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Jenkel-Davidson
OPTICAL COMPANY

Just 21 years ago this month, the Jenkel-Davidson Optical Company opened its first office, offering Northern California ophthalmologists a new type of dispensing service.

It was the first such service designed exclusively for the patients of medical eye practitioners.

We thank the members of the medical profession for their support, and pledge ourselves to hold to the same constructive course in the future.

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SALINAS: Salinas National Bank Building
SAN MATEO: 310 S. San Mateo Drive

In the Early Recognition of Protein Deficiency

Unsupervised dietary curtailment and self-imposed food restrictions, not infrequently observed in elderly patients and in those desirous of preventing weight gain or losing weight, are apt to lead to multiple nutritional derangements. Not the least important among these, and often overlooked, is protein deficiency.

The early symptoms of chronic protein deficiency are vague and lack specificity. Thus they escape detection unless pointedly looked for. Easy fatigability, loss of weight, anorexia, malaise, and a slight pallor due to underlying secondary anemia constitute the most common complaints. A careful history of eating habits usually discloses the true significance of these symptoms.

Detection of the earliest objective sign of protein deficiency—negative nitrogen balance—requires hospitalization for several days, in order that nitrogen intake and excretion can be accurately determined.

Prolonged protein deficiency leads to hypoproteinemia, and is readily recognized by generalized edema and by a serum protein level below the normal 7 to 8 Gm. per 100 cc.

The most dependable and effective means of preventing and correcting protein deficiency is through proper organization of the diet. The recommended intake of 1 Gm. of protein per Kg. of body weight insures nitrogen balance in normal persons. For correction of frank protein deficiency, at least 2 Gm. per Kg. of body weight—and frequently considerably more—is required.

Among the protein foods of man, meat ranks high, not only because of the generous supply of protein it provides, but also because its protein is biologically complete, applicable for the satisfaction of every protein need.

The Seal of Acceptance denotes that the nutritional statements made in this advertisement are acceptable to the Council on Foods and Nutrition of the American Medical Association.

ACCEPTED AMERICAN MEDICAL ASSN. Council on Foods and Nutrition

AMERICAN MEAT INSTITUTE

MAIN OFFICE, CHICAGO . . . MEMBERS THROUGHOUT THE UNITED STATES



URINE-SUGAR TESTING
made
SIMPLE • SPEEDY • CONVENIENT
with

CLINITEST

The Tablet, No Heating Method

Simply drop one Clinitest Tablet into test tube containing proper amount of diluted urine. Allow time for reaction—compare with color scale.

NOTE—NEW ATTACHMENT FOR ADDED CONVENIENCE

The test tube clip now supplied with each pocket-size case enables the test tube to be hooked on to the outside of case, as shown in illustration.

This simple device provides an added convenience for the user—tube is maintained in an *upright* position, tube is held *motionless* during reaction.

FOR OFFICE USE:

Clinitest Laboratory Outfit (No. 2108)

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Complete information upon request.

AMES COMPANY, Inc.
ELKHART, INDIANA

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA

By Frederick N. Scatena, M.D.
Secretary-Treasurer

Board Proceedings

The Board of Medical Examiners conducted oral examinations at the Board offices, 515 Van Ness Avenue, San Francisco, November 16 and 17, 1946. One hundred and twenty-two applicants were examined. Due to the large number of applicants, commissioners on examination were appointed under Section 2115 of the Business and Professions Code in order to accommodate all applicants who appeared.

At the meeting held November 16, 1946, in San Francisco, the Physician's and Surgeon's Certificate heretofore issued to George Carl Heckman McPheeters was revoked.

In view of the recent rule passed by the Board requiring all graduates of foreign medical schools to take an oral, clinical and written examination, providing the information available is found by the Credentials Committee and the Board insufficient to adequately determine the sufficiency and quality of the applicant's resident professional instruction, the Board set the dates of February 15, 1947, in Los Angeles, and June 21, 1947, in San Francisco, for the clinical and oral part of the examination. In the event the applicant is successful in the clinical and oral examination, he will be eligible to take the next scheduled written examination. An applicant must secure 75 per cent in each part of the examination in order to be issued a Certificate.

Owing to conflicting commitments the Board has been forced to transfer from the Biltmore Hotel to the Mayfair Hotel for the meetings and written examinations to be held in Los Angeles, March 10 to 13 and August 25 to 28, 1947.

The number of applications being filed for certificates in this state seems not to be in any way abated. We are still receiving many more requests for certificates, either by oral or written examination or by direct reciprocity, than was considered usual in pre-war days.

Superior Judge Peter J. Shields, in Sacramento, December 5, 1946, granted a nonsuit motion in the damage suit filed against Dr. William J. Van Den Berg by Mrs. Daisy Munoz Gerlach. Superior Judge Shields in overruling the objections to the dismissal stated:

"The doctor (Van Den Berg) was justified in arriving at that diagnosis. The evidence here seems to show beyond any question, not that the diagnosis was correct, but that under the circumstances, he was justified in arriving at that diagnosis."



5% or 10% Dextrose in Water
5% or 10% Dextrose in Saline
5% Dextrose with 5% Alcohol in Water or Saline
5% Dextrose with 10% Alcohol in Water

—all with Nicotinamide, Riboflavin, Thiamine



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ALUM ROCK SANATORIUM

SAN JOSE, CALIFORNIA

Telephone Mayfair 321

A Non-Profit Sanatorium for the treatment of tuberculosis and other diseases of the chest, located in the eastern foothills, overlooking the Santa Clara Valley.

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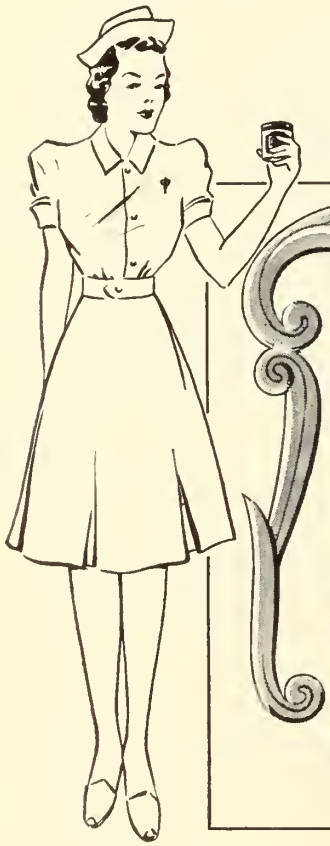
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For the Diagnosis and Treatment of Nervous and Mental Illness.

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Pediatricians recognize the advantages of flexibility in prescribing infant feeding formulas, as the protein, fat, and carbohydrate requirement may vary with the individual baby. Farmula preparatian with CARTOSE* is simple, rapid, and accurate.

CARTOSE supplies carefully balanced praportions of nanfermentable dextrins in associatian with maltose and dextrose. Due to the time required for hydrolysis of the higher sugars, absarption is spaced. This lessens the likelihood of distress attributable to the presence of excessive amaunts of readily fermentable sugars in the intestinal tract at ane time.

When supplementation with vitamins af the B camplex is indicated, KINNEY'S YEAST EXTRACT* is suggested for rautine incarparation in the daily feeding. The full daily dase is simply added to the twenty-faur-hour formula.

KINNEY'S YEAST EXTRACT is prepared fram a specially cultured yeast and cantains all the known factors of the B complex in natural, palatable form.

CARTOSE and KINNEY'S YEAST EXTRACT are offered for use under the guidance of physicians. They are available anly at drugstores.

*The words CARTOSE and KINNEY'S YEAST EXTRACT are registered trademarks af H. W. Kinney & Sans, Inc.

H. W. KINNEY & SONS, INC. (Kinney trademark.) **COLUMBUS, INDIANA**

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inducing natural sleep

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(Paraldehyde U.S.P.)

Most physicians who have prescribed this drug have been impressed with the wide margin of safety it enjoys over other commonly employed analgesics. In obstetrics, it has been found to possess a high degree of safety for both mother and child.

PARALOIDS, containing Paraldehyde U.S.P. in special base for slow rectal absorption, are easily inserted after being lubricated with surgical jelly or petrolatum, thus, to a large degree eliminating the unpleasant taste or odor heretofore encountered.

PARALOIDS, UNLIKE THE BARBITURATES, DOES NOT LEAVE THE PATIENT WITH UNDESIRABLE AFTER-EFFECTS

PARALOIDS "RectaCaps," represent 5 cc. of Paraldehyde U.S.P. and has been found to produce sleep for a period of four to five hours.

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Supplied in boxes of 12's and 24's

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● He hunts the "biggest game" of all... the microscopic and mysterious enemies of mankind.

He hunts not with a rifle, but with a microscope.

He is the doctor out to effect a cure by finding the cause—and combating it.

No place in the world, not even the remotest jungle, is too far, too dangerous, or too difficult for him to penetrate when the needs of medical science say, "This must be done."

According to a recent independent nationwide survey:

More Doctors Smoke Camels

than any other cigarette



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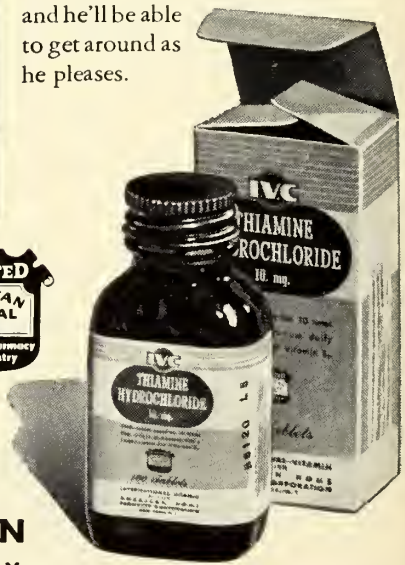
'ROUND AND 'ROUND HE GOES



If you were to take this rat, spin him by the tail and drop him he would go 'round and 'round. He has polyneuritis. Notice his peculiar hunched-up position and the manner in which his hind leg is splayed out. He's having a tough time co-ordinating his movements. We fed him on a diet deficient in Thiamine Hydrochloride so that, now, we can change his rations and determine the correct amounts of this substance in IVC's vitamin products.



When enough Thiamine Hydrochloride is restored to this fellow's diet he will return to a normal happy state, as his brother shown at left. He won't have any more pain and he'll be able to get around as he pleases.



ACCEPTED
AMERICAN MEDICAL ASSN
Council on Pharmacy and Chemistry

The animals pictured here are two of many hundreds used in IVC's biological laboratories to test all products for Thiamine Hydrochloride content. This procedure is another safeguard and assurance that all IVC products are true to label claims.

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World's Largest Manufacturer of Vitamin Products Exclusively

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when constipation results from overstimulation

"Smoothage"—the term coined to describe the action of Searle Metamucil—seeks to avoid further irritation, to soothe and to protect the overstimulated intestinal mucosa, and to reestablish the normal reflexes of elimination.

Metamucil softens the fecal residue, affords bland bulk and exerts a gentle, stimulating, physiologic peristalsis.

METAMUCIL

is the highly refined mucilloid of Plantago ovata (50%), a seed of the psyllium group, combined with dextrose (50%), as a dispersing agent.

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A strong foundation saved the Cathedral of Cologne in ground-shaking bombing assaults of World War II . . . and a strong nutritional foundation laid down in infancy will likewise help to protect health and strength in years to follow, against health-destroying assaults of disease. • BIOLAC furnishes among other essential nutrients the valuable proteins of milk, an outstanding source of all the indispensable amino acids . . . the prerequisite building blocks of strong tissues. • BIOLAC is bacteriologically safe . . . convenient . . . economical . . . readily available.

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Biolac

The foundation is the thing

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Biolac is a liquid modified milk, prepared from whole and skim milk with added lactose, and fortified with thiamine, concentrate of vitamins A and D from cod liver oil, and iron citrate; only ascorbic acid supplementation is necessary. Evaporated, homogenized and sterilized. Biolac is available in 13 fl. oz. tins at all drug stores.

Quickly prepared . . . easily calculated: 1 fl. oz. Biolac to 1½ fl. oz. water per lb. of body weight.



CHANGES IN MEMBERSHIP

(Continued from Front Advertising Section, Page 20)

Levitt, Jack, *San Francisco*
Long, Albert E., *San Francisco*
Lubin, Albert J., *San Francisco*
McBain, Earl H., *San Francisco*
Miller, David, *San Francisco*
Newsom, William, *San Francisco*
Novacovich, George G., *San Francisco*
Palmer, Allan, *San Francisco*
Reid, Richard H., *San Francisco*
Robbins, Rudolph Dee, *San Francisco*
Schaefer, Jane, *San Francisco*
Scheck, Max, *San Francisco*
Schilla, Frederick W., *San Francisco*
Schwartz, Ernest, *San Francisco*
Simpson, Robert W., *San Francisco*
Skaggs, Marshall L., *Mill Valley*
Slepnikoff, Stevan F., *San Francisco*
Smith, Carl W., *San Francisco*
Smith, Robert L., Jr., *San Francisco*
Sooy, Francis A., *San Francisco*
Schottstaedt, E. R., *San Francisco*
Spishakoff, Nathan N., *San Francisco*
Steinberg, Theodore, *San Francisco*
Sweeney, Joseph B., *San Francisco*
Szurek, Stanislaus A., *San Francisco*
Williams, L. H., *San Francisco*

San Joaquin County (2)

Gotanda, Wilfred, *Stockton*
Weiss, Isidore I., *Stockton*

San Mateo County (3)

Brown, Robert G., *Palo Alto*
Gardner, Irvin B., *San Mateo*
Haerem, Alf T., *Redwood City*

Santa Barbara County (9)

Austin, Warren R., *Santa Barbara*
Brown, Harry E., *Santa Barbara*
Campbell, Charles M., *Santa Barbara*
Hamlin, Percy G., *Santa Barbara*
Nelson, Lawrence M., *Santa Barbara*
Petty, William M., *Santa Maria*
Randall, R. C., *Guadalupe*
Sheehan, William J., *Santa Barbara*
Wentz, Arthur E., *Santa Barbara*

Santa Cruz County (2)

Meltzer, A. M., *Boulder Creek*
Vail, James B., *Santa Cruz*

Ventura County (2)

Jump, Walter C., *Ventura*
Perry, R. Mel., *Ventura*

TRANSFERS (16)

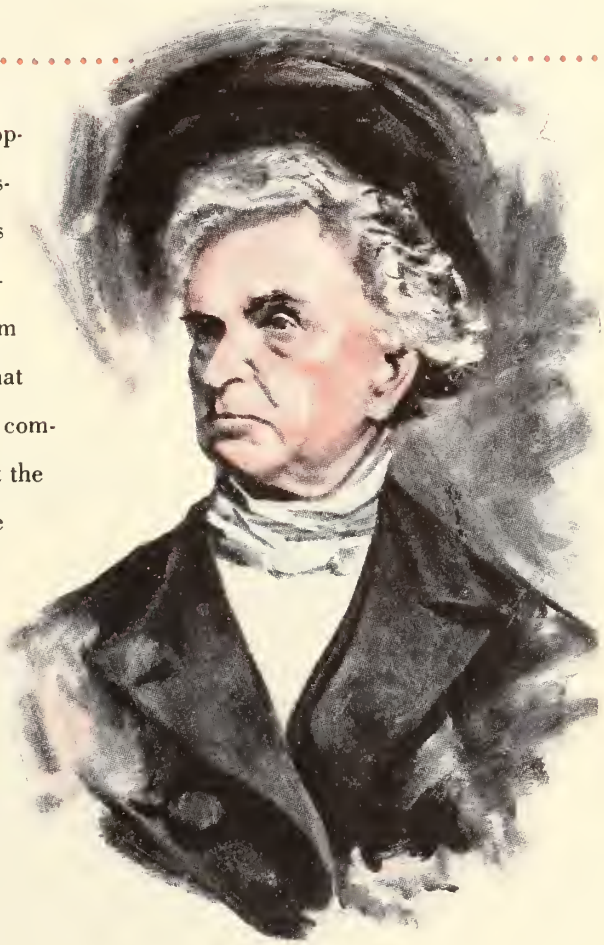
Aikin, William P., from *Los Angeles County* to *Riverside County*
Bostick, Warren L., from *San Francisco County* to *Marin County*
Brown, George Davenport, from *Contra Costa County* to *Alameda County*
Campbell, J. Gary, from *Los Angeles County* to *Santa Barbara County*
Campion, Edward, from *San Francisco County* to *Marin County*
Campion, Gwendolyn, from *San Francisco County* to *Marin County*

(Continued on Page 46)

Men and Amino Acids

Liebig's researches helped shape the development of chemical science in relation to physiology. He assigned to nitrogenous substances the vital role of tissue building, and demonstrated their importance in the metabolism of other dietary constituents; . . . proved that animal heat and energy are produced by the combustion of food in the body; . . . pointed out the chemical similarity of animal and vegetable tissue; and, in addition, made many basic contributions to agricultural science. Among Liebig's many achievements were the discovery of tyrosine, establishment of the formula of creatine and its decomposition products and of other constituents of tissues and body fluids.

A contemporary paid tribute to Justus von Liebig as "the greatest experimental thinker who has yet appeared among mankind."



JUSTUS VON LIEBIG — 1803-1873

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First in a Series

PROGRESSING CARDIAC FAILURE → CIRCULATORY INADEQUACY → RAPID SHALLOW BREATHING → ANOXEMIA AND CYANOSIS →

Metrazol *Council Accepted*

By injection - 1 or 2 cc.
orally - 1 to 3 tabs.

In Pneumonia

The Disease is in the Chest - but the Danger is in the Respiration and Circulation

Metrazol

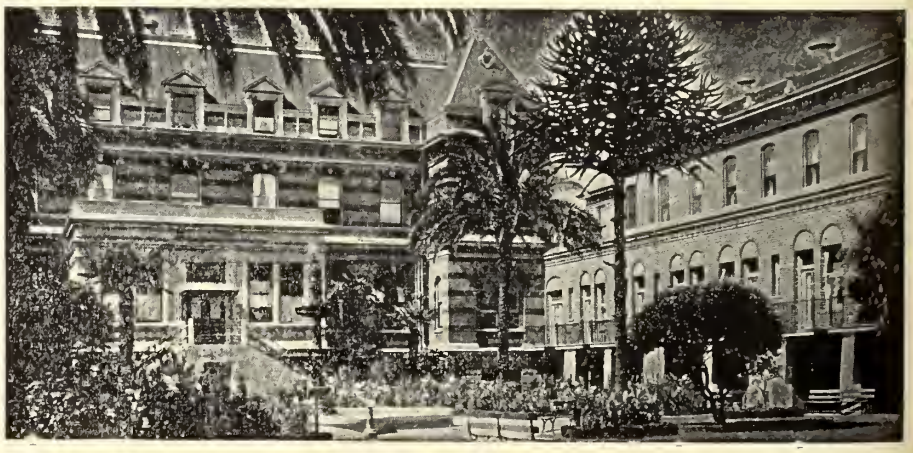
(brand of pentamethylentetrazol)

Stimulates the Respiratory and Vasomotor Centers depressed by toxins or drugs—used as a supportive measure with sera, sulfa drugs, antibiotics or oxygen

BILHUBER-KNOLL CORP. ORANGE, N. J.

French Hospital

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CALIFORNIA

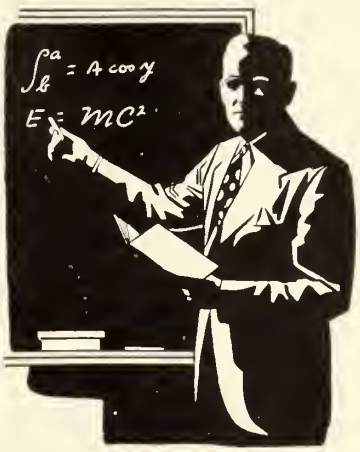


A general hospital of 225 beds operating an accredited School of Nursing, admitting all classes of patients except those suffering from mental diseases. Organized in 1851 and operated by the French Mutual Benevolent Society through a Board of Directors, a chief executive officer and staff. Accredited for intern training by the American Medical Association and approved by the American College of Surgeons.

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..... ***Secretary of Staff***



Molder of Minds

Dietary Dub!

His diet is balanced, *yet he is a borderline vitamin deficiency case.* Like many others whose occupations are sedentary and who take little exercise otherwise, his caloric requirements and appetite are so small that he simply does not eat *enough* food to supply adequate quantities of the protective factors. As a result his case record has taken its place in his physician's file along with those of all of the other varieties of dietary delinquents: the ignorant and indifferent, patients "too busy" to eat properly, those on self-imposed and badly balanced reducing diets, excessive smokers, alcoholics, and food faddists, to name but a few. First thought in such cases is dietary reform, of course. But this is often more easily advised than accomplished. Because of this, an ever-growing number of physicians prescribe a vitamin supplement in every case of deficiency. If you're one of these physicians—or if you prescribe vitamins only rarely—consider the advantages of specifying an *Abbott* vitamin product: Quality—Certainty of potency—A line which includes a product for almost every vitamin need—And easy availability through pharmacies everywhere. ABBOTT LABORATORIES, North Chicago, Ill.

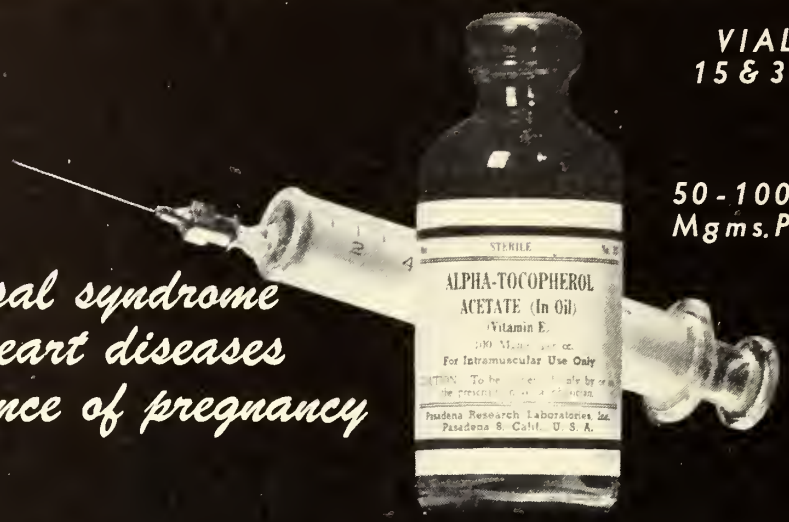
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Abbott Vitamin Products

for the Men Who Decide_____

It's ALPHA-TOCOPHEROL ACETATE

VIALS
15 & 30 cc



50-100-200
Mgms. Per cc.

for
sterility
menopausal syndrome
certain heart diseases
maintenance of pregnancy

PASADENA RESEARCH LABORATORIES, INC.
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THE LENS FOR MOVING EYES . . .

Orthogon

There's one *best* correction for every visual condition. And that correction should be the same whether the patient looks through the center of the lens or its edge. The exclusive Orthogon formula means uniform power edge-to-edge—comfort and efficiency for your patients. *In Soft-Lite, too.*

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distributors of
BAUSCH & LOMB PRODUCTS

PENICILLIN-C.S.C.

Crystalline

SODIUM SALT

IS PENICILLIN G

AND REQUIRES NO REFRIGERATION

"NONE BETTER THAN PENICILLIN G IS NOW AVAILABLE"*

* Council on Pharmacy and Chemistry: Penicillin Facts and Rumors, J.A.M.A. 131:1423 (Aug. 24) 1946.

Presenting penicillin G—clinically the most effective penicillin species available—Crystalline Penicillin-C.S.C. Sodium Salt can be depended upon to produce optimal therapeutic effects. It induces highly satisfactory penicillin blood levels and maintains them for 2 to 3 hours.

- ***Highly Purified***—Contains not less than 1,500 units per mg., virtually eliminating untoward reactions attributable to impurities.
- ***No Refrigeration Required***—Crystalline Penicillin-C.S.C. Sodium Salt can be kept at room temperature—even in the tropics—and does not require refrigeration.* It may be carried in the physician's bag or stored on the pharmacy shelf without potency loss.
- ***Well Tolerated Subcutaneously***—Can be administered subcutaneously—even in large doses—with virtually no pain or local reaction.
- ***Potency Clearly Stated on Label***—The physician knows at a glance the degree of purification of the penicillin administered.

Crystalline Penicillin-C.S.C. Sodium Salt is available in serum-type vials containing 100,000, 200,000 or 500,000 units.

* CAUTION: Once in solution, however, all penicillin requires refrigeration.



ACCEPTED AMERICAN MEDICAL ASSN Council on Pharmacy and Chemistry

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m Salt is accepted by
Council on Pharmacy and
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Haack



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BELAP tablets nave won an enviable reputation for good results in the treatment of intestinal smooth muscle spasms, spasm incident to gastric and peptic ulcers, pylorospasm, urogenital spasms, spastic constipation and other spastic manifestations.

Available in Three Strengths of Sedation:

BELAP, No. 0 Tablets
Formula—Belladonna Extract.....1/8 gr.*
Phenobarbital 1/8 gr.

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BELAP, No. 2 Tablets—bisected
Formula—Belladonna Extract.....1/8 gr.*
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*equiv. to 5 minims Tinct. Belladonna, U.S.P.

Supplied on prescription only. Clinical samples available.

ACCURATE DOSAGE . . . CONVENIENT FORM . . . ECONOMY

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Ayerst Control of menopausal symptoms can be established promptly, in the majority of cases, by ORAL therapy alone. The extensive bibliography of "PREMARIN" offers convincing evidence that this highly potent, orally active, natural estrogen is a most effective therapeutic measure for treating the menopausal patient.

Essentially Safe, Naturally Occurring, Highly Potent, Orally Effective, Water Soluble, Well Tolerated,

ACCEPTED AMERICAN MEDICAL ASSN. Imparts a feeling of well-being



TABLETS of 1.25 mg.
TABLETS-(Half-Strength) of 0.625 mg.
LIQUID, containing 0.625 mg. per 4 cc.

conjugated estrogens (equine)

"Premarin"*



AYERST, McKENNA & HARRISON Ltd.

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Garden Grove Sanitarium
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...Hospitality
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Garden Grove Sanitarium is noted for its Hospitality. The superb accommodations combined with complete medical and diagnostic service make the sanitarium one of choice to the discriminating.
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Reflection

S-M-A	HUMAN MILK





S-M-A* *is so like mother's milk it seems to mirror nature*

Whenever mother's milk is unavailable or of insufficient quantity S-M-A can be relied on to replace it.

S-M-A has the same percentage of protein, fat and carbohydrate as human milk. This similarity of S-M-A to mother's milk is largely responsible for the successful nutritional history of S-M-A babies.

*REG. U.S. PAT. OFF.

S-M-A is derived from the milk of tuberculin-tested cows. Part of the butter fat of this milk is replaced with animal and vegetable fats including biologically assayed cod liver oil. Milk sugar, vitamin A and D concentrate, carotene, thiamine hydrochloride, potassium chloride and iron are added.

Supplied: 1 lb. tins with measuring cup.

S. M. A. DIVISION • WYETH INCORPORATED • PHILADELPHIA 3 • PA.

SMA

One to One

Mothers simply add 1 measure of S-M-A Powder to 1 ounce of warm (previously boiled) water to make any quantity desired

CHANGES IN MEMBERSHIP

(Continued from Page 36)

Champeux, Yvonne, from *San Francisco County* to *Monterey County*
Cox, Thomas J., from *San Francisco County* to *Marin County*
Ervin, Clinton V., from *San Francisco County* to *San Mateo County*
Gewertz, Louis L., from *Los Angeles County* to *Fresno County*
Hess, Rolla B., from *San Francisco County* to *Marin County*
Jones, Orion C., from *Santa Barbara County* to *Riverside County*
McNulty, Albert H., from *San Francisco County* to *Humboldt County*
Miller, Palmer D., from *Tulare County* to *Fresno County*
Norberg, Raymond W., from *Santa Clara County* to *Fresno County*
Popov, Nicholas P., from *San Francisco County* to *San Mateo County*

Retired Members (14)

Breuer, Charles H., *Santa Clara County*
Farrage, James, *Orange County*
Fenton, Walter Wallace, *San Bernardino County*
Fogg, Edward Samuel, *Kern County*
MacFarlane, Arthur H., *Santa Clara County*
Mendelsohn, Louis, *Santa Clara County*
Porter, Edwin E., *Santa Clara County*
Pritchard, Jacob L., *Santa Clara County*

(Continued on Page 56)

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A General Hospital With Accommodations for Three Hundred Patients And Operating* THE MEDICAL OFFICE BUILDING, *Facing the Hospital
Tenancy Restricted to the Medical and Dental Professions

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for Hernia

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When you refer a patient to M. J. Benjamin you are assured that a support will be carefully made according to sound principles backed by two generations of experience.

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Shaping each pad to conform to the hernial region permits the covering of a broader surface and the use of a softer materail.

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Our work is guaranteed to meet with your approval and your patient's satisfaction.

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WALKER



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The hallmark of Walker manufacture is its uncompromising emphasis on quality. Rigid controls at every stage of production, from raw materials to the finished products, insure their dependability. Physicians know that Walker vitamin products can be prescribed with confidence.

Walker
VITAMIN PRODUCTS, INC.
MOUNT VERNON, NEW YORK

CURD TENSION

Consistently Zero!



A CLINICAL ADVANTAGE IN FEEDING THE PREMATURE

Because Similac, like breast milk, has a *consistently zero* curd tension, it can be fed in a concentrated high-caloric formula without fear of increased curd tension and lengthened digestive period. Hence, premature infants unable to take a normal volume of food may safely be fed a concentrated Similac formula supplying as much as *double* the caloric value (per ounce) of the normal dilution. The use of a concentrated formula often avoids serious loss of weight and inanition in the premature infant, and permits a more rapid return to normal weight gain.

M & R DIETETIC LABORATORIES, INC. • COLUMBUS 16, OHIO

ACCEPTED AMERICAN MEDICAL ASSN. Council on Foods and Nutrition

SIMILAC

Similar to breast milk

A powdered, modified milk product, especially prepared for infant feeding, made from tuberculin tested cow's milk (casein modified) from which part of the butter fat has been removed and to which has been added lactose, cocoanut oil, cocoa butter, corn oil, and olive oil. Each quart of normal dilution Similac contains approximately 400 U.S.P. units of Vitamin D and 2500 U.S.P. units of Vitamin A as a result of the addition of fish liver oil concentrate.

raison d'être

There are sound medical reasons for ESTINYL, an oral estrogen closely related to the primary follicular hormone, alpha-estradiol:



it is the most potent oral estrogen known today.

it controls hormonal deficiency symptoms rapidly,

it is virtually free from side effects in therapeutic dosage,

it induces the sense of well-being characteristic of the estrogenic hormone,

it is economical—within the means of almost all patients.

ACCEPTED AMERICAN MEDICAL ASSN Council on Pharmacy and Chemistry

ESTINYL

For menopausal patients one ESTINYL Tablet of 0.05 mg. daily is usually sufficient, but two or three tablets daily may be prescribed in the presence of severe symptoms.

ESTINYL (ethinyl estradiol) Tablets are best administered at bedtime.

Available in two strengths—0.05 (*five-hundredths*) mg. (pink) and 0.02 (*two-hundredths*) mg. (buff) tablets. Bottles of 100, 250 and 1,000.

Trade-Mark ESTINYL—Reg. U. S. Pat. Off.

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PARK SANITARIUM 1500 PAGE ST. SAN FRANCISCO.

DEVEREUX SCHOOLS — a non-profit organization conducted by the Devereux Foundation — combines the facilities of *home*, *school*, and *clinic* for boys and girls who are:

Emotionally Maladjusted

(1) Lack security
(2) Tend to live in a dream world of their own
(3) Withdraw from the group, showing fears or other reactions which may interfere with a balanced evolution toward emotional maturity, or feel uneasy or resentful toward a world peopled by others.

or

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Need their potential abilities uncovered and developed through special methods for:
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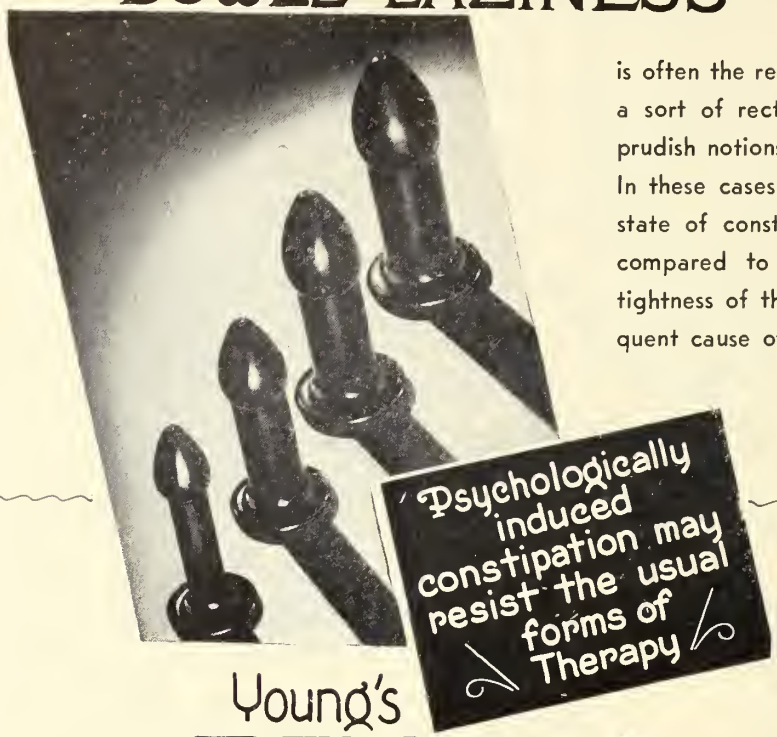
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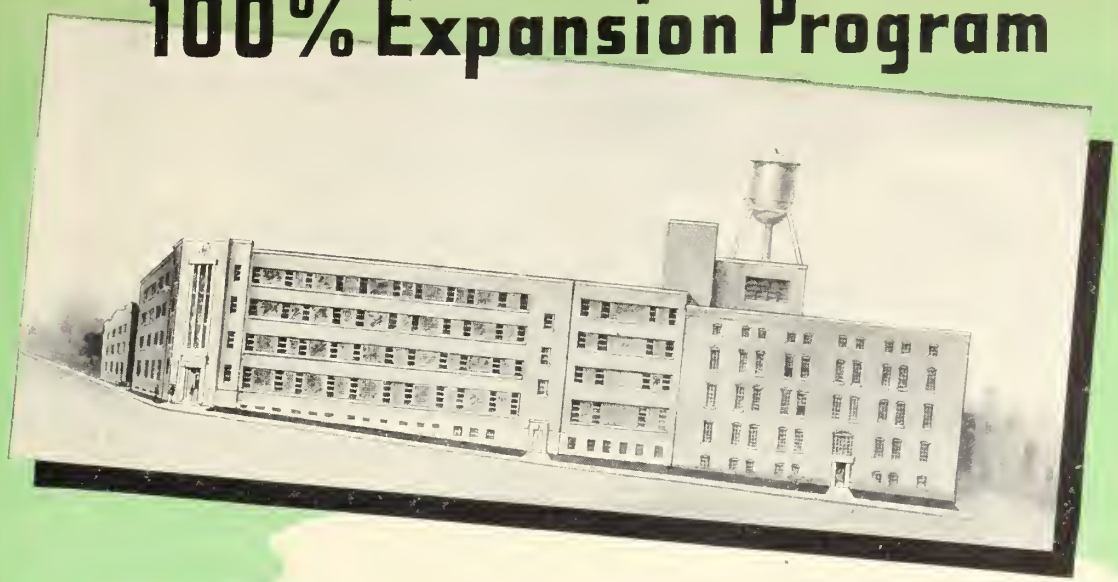
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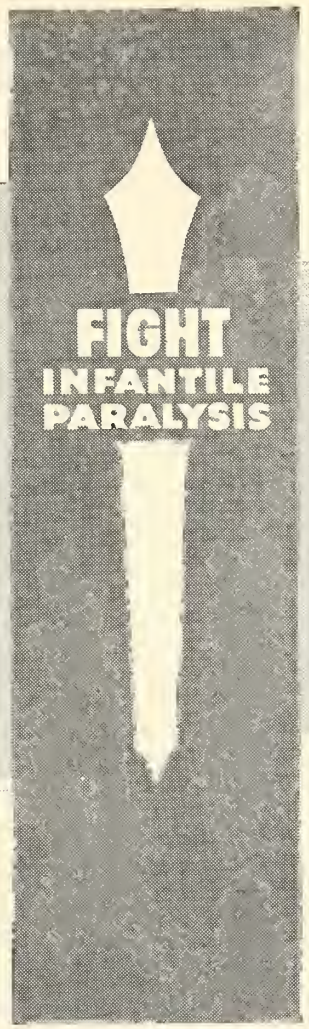
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(Continued from Page 46)

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NUTRITIONAL DEFICIENCY DISEASE RESPONDS WELL TO FOLIC ACID

A nutritional deficieney disease called sprue has shown a striking response to treatment with synthetic folic acid, one of the B complex vitamins, according to an article in the December 14 issue of *The Journal of the American Medical Association.*

Four physicians—Guillermo Garcia Lopez, M.D., Havana, Cuba, Tom D. Spies, M.D., Birmingham, Ala., Jose Aristides Menendez, M.D., and Ruben Lopez Toca, M.D., of Havana, Cuba—conducted this experiment for the University of Cincinnati Studies in Nutrition at the Calixto Garcia Hospital, Havana, in cooperation with the Institute of Nutrition of Cuba and the University of Havana.

Treatment of the 18 patients with sprue admitted to the hospital for the purpose of the study consisted of a rigidly controlled diet with meat, meat products, fish and poultry exeluded and only one quart of milk and one egg allowed

(Continued on Page 60)

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(*B. pyocyaneus*)

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(*Friedländer's bacillus*)

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Streptomycin is a helpful agent also in the treatment of the following diseases, but its position has not been clearly defined:

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Peritonitis due to susceptible organisms.
Pneumonia due to *Klebsiella pneumoniae* (*Friedländer's bacillus*).
Liver abscesses due to streptomycin-sensitive bacilli.
Cholangitis due to susceptible pathogens.
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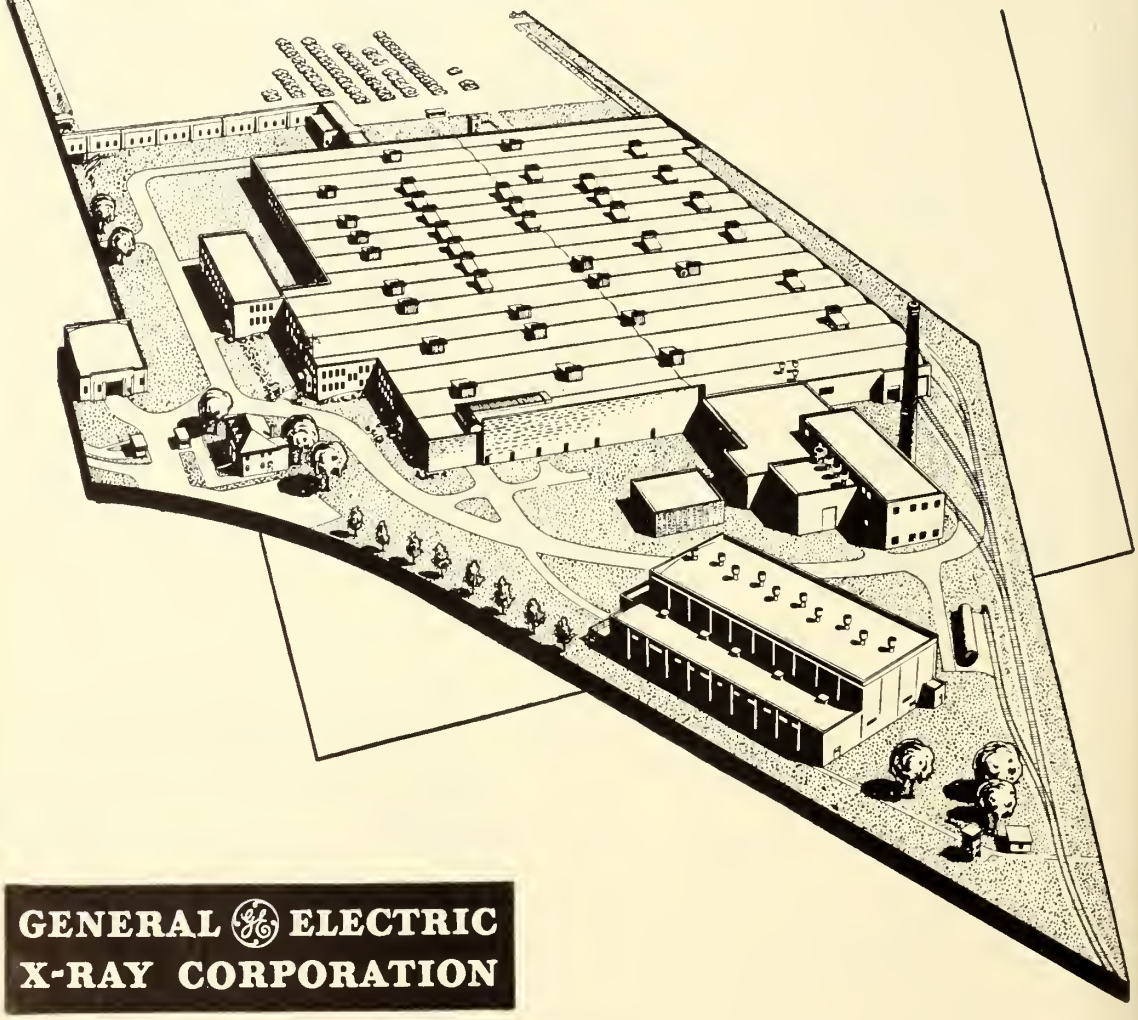
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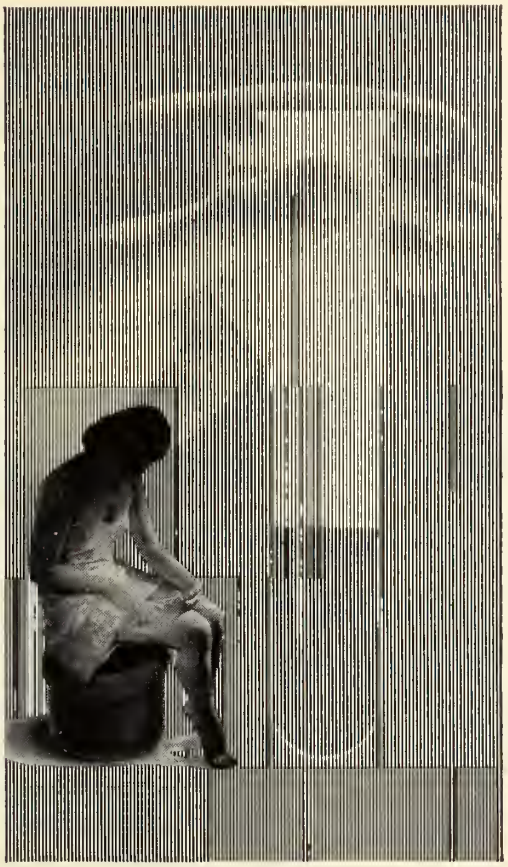
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NUTRITIONAL DEFICIENCY DISEASE RESPONDS WELL TO FOLIC ACID

(Continued from Page 56)

daily. All other foods were allowed to the extent desired. The folic acid was given by mouth between meals.

Sprue, a chronic disease, is characterized by inflammation of the tongue, diarrhea, loss of weight, reduction in the number of white blood cells and poor absorption from the intestines. As the authors point out, nutritional deficiency causes the disease. They state that the patients' "dietary histories revealed that in every instance the dietary had not been completely adequate even prior to the onset of illness. The foods conspicuously lacking or eaten in insufficient amounts were meat, fish, poultry, eggs and milk. In all cases cereal foods, root vegetables and dried beans had been the foods used most commonly and in the most liberal amounts. Following the onset of illness, loss of appetite and soreness of the tongue had so interfered with the intake of food that in each case the diet of the patient was grossly deficient in all nutrients."

Macrocytic anemia is a condition which accompanies sprue. This is marked by the abnormal growth of immature blood cells. The doctors have demonstrated that folic acid makes the blood cells pass through the normal stages to maturity.

"Before the introduction of folic acid there was not a known chemical substance that had any profound effect on the ultimate course of the sprue," state the authors.

However, they noted that "after the administration of the folic acid there was a prompt regeneration of the blood and a tendency of the alimentary tract to return to normal function." Even when pathogenic intestinal parasites were

(Continued on Page 66)

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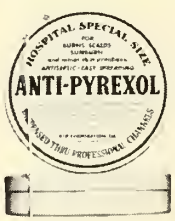
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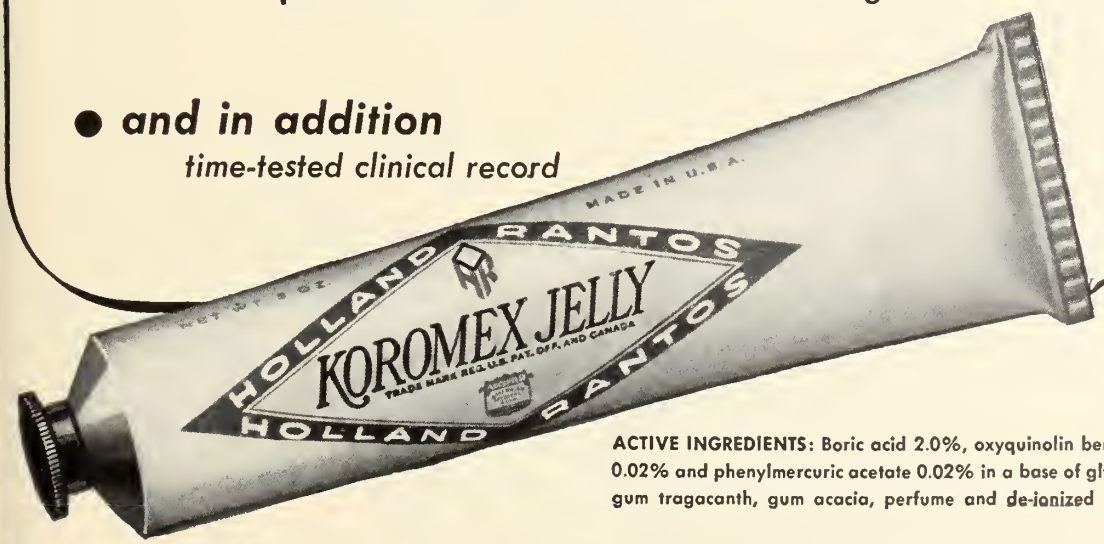
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NUTRITIONAL DEFICIENCY DISEASE RESPONDS WELL TO FOLIC ACID

(Continued from Page 60)

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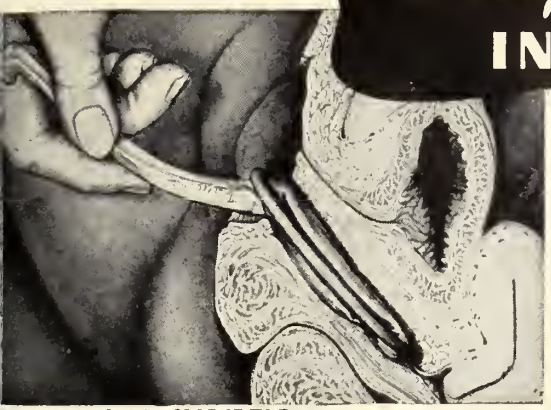
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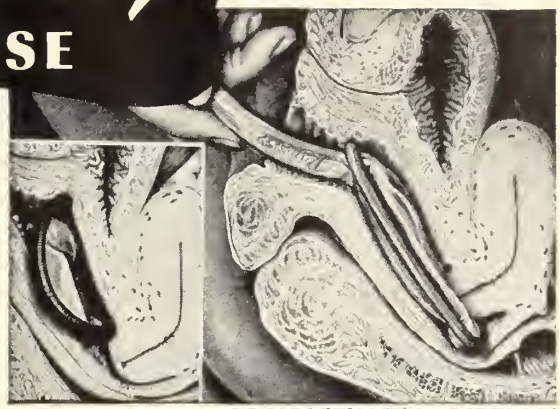
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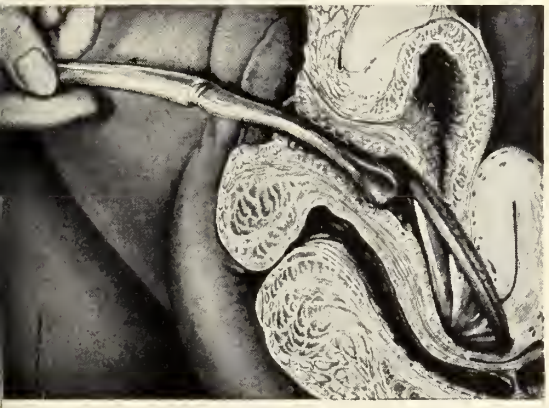


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*Frazer, J. G.: The Golden Bough, vol. 1, New York, Macmillan & Co., 1923



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TREATMENT OF BACTERIAL MENINGITIS WITH PENICILLIN, SULFONAMIDES, AND SERA, Henry Brainerd and Elizabeth Bradley, San Francisco 57

THE TREATMENT OF PNEUMOCOCCIC PNEUMONIA WITH PENICILLIN AND SULFADIAZINE, Morris F. Collen, Oakland 62

ANTIBIOTICS IN THE TREATMENT OF HEMOLYTIC STREPTOCOCCUS SORE THROAT, Lowell A. Rantz, San Francisco 66

NITROUS OXIDE AND OXYGEN ANESTHESIA WITH CURARE RELAXATION William Neff, Edward C. Mayer, and Maria de la Luz Perales, San Francisco .. 67

POISON OAK—NEW ANTIGENS AND THEIR EFFECT ON SENSITIZED GUINEA PIGS, Ernest K. Stratton, San Francisco 70

THIOURACIL IN THYROID DISEASES, Mayo H. Soley, San Francisco 75

IMPROVED FORMS OF INSULIN: ADVANTAGES OF MODIFIED PROTAMINE ZINC INSULIN, Cyril M. MacBryde, Los Angeles 79

MEDICAL PROGRESS: RECENT ADVANCES IN NEUROLOGY Charles D. Aring, San Francisco 84

EDITORIALS 89

CALIFORNIA MEDICAL ASSOCIATION 91

NEWS AND NOTES 98

INFORMATION 100

LETTERS TO THE EDITOR 104

BOOK REVIEWS 105

MEDICAL JURISPRUDENCE 106

BOARD O MEDICAL EXAMINERS Adv. page 42

ANTISPASMODICS Adv. page 10

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Arlington Chemical Co., The..... 13
Ayerst, McKenna & Harrison Limited..... 27
Baker Laboratories, The..... 30
Baxter, Inc., Don..... 61
Benjamin, M. J..... 66
Birtcher Corporation, The..... 55
Bolin, M.D., Zera E., Pathologist..... 48
Borcherdt Malt Extract Company..... 16
Borden Company, The..... 23
Bristol Laboratories Incorporated..... 43
Broemmel's Pharmaceuticals 3
Burroughs Wellcome & Co.....31 and 63
California Sanatorium, The..... 58
Calso Water Co..... 64
Camp & Company, S. H..... 47
Ciba Pharmaceutical Products.Insert 16 and 17
Classified Advertisements 8
Coca-Cola Company, The..... 62
Compton Sanitarium 48
Cook County Graduate School of Medicine.. 48
Cutter Laboratories 4th cover
Devereux Schools 16
Doctors Business Bureau, The..... 3
Endo Products, Inc..... 53
French Hospital 20
Garden Grove Sanitarium..... 12
Greens' Eye Hospital..... 7
Guth, C. Rodolph..... 7
Haac Laboratories, Inc..... 52
Hanger, Inc., J. E..... 67
Harrower Laboratory, Inc., The..... 9
Hershey Pharmaceutical Co..... 16
Hittenberger Co., C. H..... 38
Hygeia Sanatorium 66
Ingram Laboratories, Inc..... 34
International Vitamin Div. of Am. Home Prod. 32
Jenkel-Davidson Optical Co..... 46
King Ambulance Company..... 17
Kinney & Sons, Inc., H. W..... 41
La Loma Feliz..... 17
Las Encinas Sanitorium..... 48
Lilly and Company, Eli.....Insert 39
Livermore Sanitarium 58
Los Angeles Tumor Institute..... 8
Luziers, Inc. 40
M & R Dietetic Laboratories, Inc..... 11
McCall's Desert-Air Lamps..... 68
Mead Johnson & Company.....3rd cover
Medical Protective Company, The..... 37
Menninger Foundation 44
Merck & Co., Inc. 29
Moulin Studios, Gabriel..... 44
National Dairy Products Co., Inc..... 39
New York Polyclinic Medical School and Hospital, The 54
Noble Placement Agency 17
Officers of the California Medical Association 2, 4 and 6
Park Sanitarium 20
Parke, Davis & Company..2nd cover; 1 and 59
Pasadena Research Laboratories, Inc..... 17
Philip Morris & Co., Ltd., Inc..... 35
Physicians Casualty Association..... 24
Physicians Formula Cosmetics, Inc..... 54
Pitman-Moore Company 70
Pottenger Sanatorium and Clinic, The..... 21
Procredit Company 10
Raleigh Hills Sanitarium, Inc..... 56
Reynolds Tobacco Co., R. J.....18 and 19
Riggs Optical Co..... 28
Saint Francis Hospital..... 28
St. Luke's Hospital..... 60
Sandoz Chemical Works, Inc..... 62
San Francisco Surgical Co..... 36
Schering Corporation 57
Schmid, Inc., Julius..... 69
Searle & Co., G. D..... 33
Servex, Inc. 66
Sharp & Dohme..... 21
Smith-Dorsey Company, The..... 50
Smith, Kline & French Laboratories..... 51
Spencer Incorporated 10
Stacey, Inc., J. W..... 38
Stearns & Co., Frederick..... 45
Stuart Oxygen Company..... 40
Thompson, Inc., Marvin R..... 65
Upjohn Company, The..... 25
Urell Inc. 24
Varick Pharmacal Co., Inc..... 26
Wander Company, The..... 49
Warren-Teed Products Co., The..... 5
White Laboratories, Inc., The..Insert 54 and 55
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Young & Co., F. E..... 14

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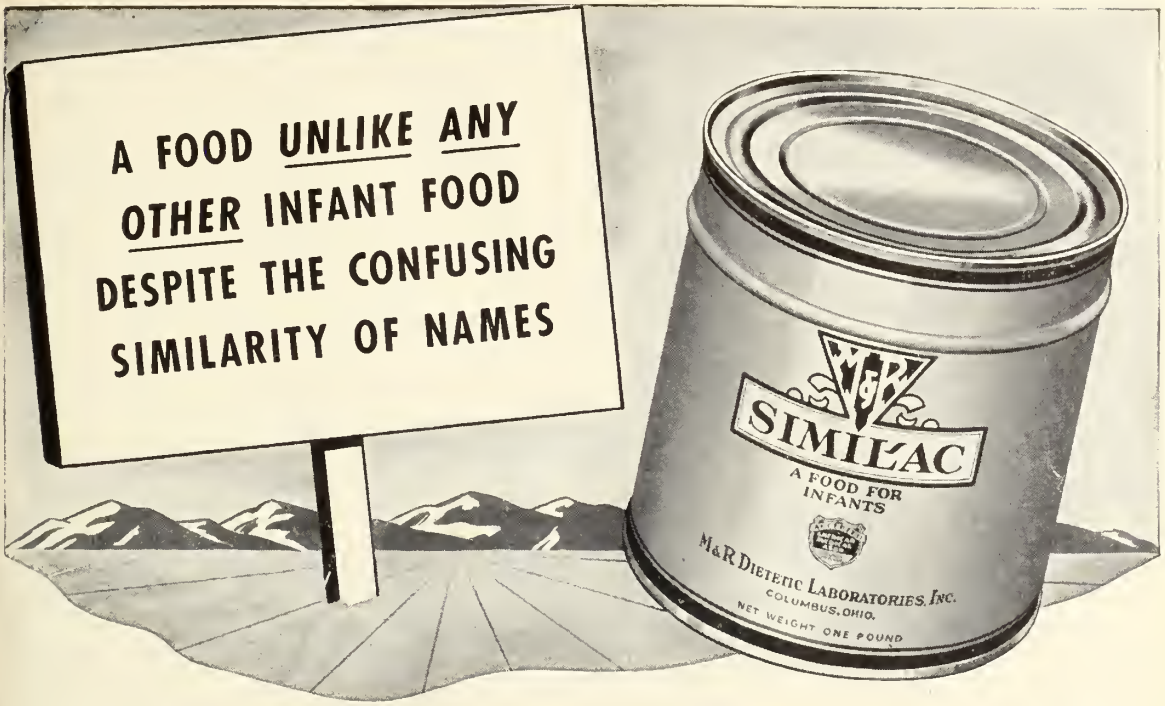
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Winston-Salem, North Carolina

COUNTY SOCIETIES

CHANGES IN MEMBERSHIP

NEW MEMBERS (90)

Los Angeles County (77)

Adams, Everett Homer, *Alhambra*
Adams, Lawrence, *Los Angeles*
Alcorn, Chester L., *Pomona*
Anderson, Leland H., *Los Angeles*
Anderson, Carl A., *Pasadena*
Beckner, George Lawrence, *Los Angeles*
Belknap, Hobart D., *Pasadena*
Batten, Charles Thomas, *Los Angeles*
Barton, Richard Thomas, *Santa Monica*
Burns, William Thomas, III, *Long Beach*
Butka, Leslie Harrison, *Pomona*
Bookman, Ralph, *Los Angeles*
Calmenson, Marvin, *Sherman Oaks*
Calvin, Daniel W., *Beverly Hills*
Cohn, Arnold L., *Los Angeles*
Cole, Sidney S., *Santa Monica*
Coleman, Harold S., *Los Angeles*
Covel, Martin B., *Los Angeles*
Dahlman, Rynol A., *Van Nuys*
Dillon, John Bartley, *Los Angeles*
Donahue, Daniel William, *Los Angeles*
Dorsey, John Ward, *Long Beach*
Edel, Maximilian, *Los Angeles*
Engstrom, Walfred A., *Huntington Park*
Ettleson, Abraham, *Los Angeles*
Finch, Raymond Bernard, *Covina*
Gelfand, Leo, *Los Angeles*
George, Lowell E., *San Gabriel*
Gerchik, Max, *Los Angeles*

(Continued on Page 24)



Approved for . . .
ADDICTION CASES
NEURASTHENIC
PSYCHIATRIC ●
CALL MARKET 4343
● HEMLOCK 6326
KEVIN McGETTIGAN
Manager

PARK SANITARIUM 1500 PAGE ST. SAN FRANCISCO.

French Hospital

Geary Boulevard and
Fifth Avenue
SAN FRANCISCO
CALIFORNIA



A general hospital of 225 beds operating an accredited School of Nursing, admitting all classes of patients except those suffering from mental diseases. Organized in 1851 and operated by the French Mutual Benevolent Society through a Board of Directors, a chief executive officer and staff. Accredited for intern training by the American Medical Association and approved by the American College of Surgeons.

Staff

John S. Toulze *President*
Henry Bazerque *Secretary*
Charles J. Malinowski . . *Superintendent*
William L. Rogers, M.D. . . *Chief of Staff*
Loris E. Curtis, M.D. . *Chairman of Staff*
Marius A. Francoz, M.D. *Secretary of Staff*

mortality reduction in intestinal surgery

Clinical reparts cantinue to substantiate the *exceptianal effective*ness af 'Sulfasuxidine' *succinylsulfathiazole* as an enteric bacteriostat in intestinal surgery. After emplaying the drug, tagether with ather apprapriate measures, in the preaperative preparatian af 50 patients far intestinal anastamasis, twa distinguished clinicians cancluded:

> **"Preparation with succinylsulfathiazole and aseptic anastomosis are factors in reducing the mortality rate."***

'Sulfasuxidine' *succinylsulfathiazole* is effective alsa in the treatment of acute or chranic bacillary dysentery, as well as the carrier state of the disease, and in ulcerative calitis. Supplied in 0.5-Gm. tablets in battles af 100, 500 and 1,000 as well as in pawder farm in ¼-paund and 1-paund battles. Sharp & Dahme, Phila. 1, Pa.

*Surg., Gynec. & Obst. 81:593, December, 1945

SHARP & DOHME

'SULFA SUXIDINE'

Succinylsulfathiazole



Announcing Crystalline Penicillin G Sodium Merck

- ★ No refrigeration required for dry form.
- ★ Therapeutically inert materials which may act as allergens have been virtually eliminated.
- ★ Minimum irritation on injection as a result of removal of therapeutically inert materials.
- ★ Meets exacting Government specifications for Crystalline Penicillin G.
- ★ Penicillin G has been proved to be a highly effective therapeutic agent.



CRYSTALLINE PENICILLIN G SODIUM MERCK

MERCK & CO., Inc. RAHWAY, N. J.

Manufacturing Chemists

MERCK MERCK



Sturdy

ON STRONG FOUNDATIONS

The 2000 year old Nile Temple of Philae stands enduringly firm on its original foundation—even though flooded each year from November to June, since the construction of the Assuan Dam at the end of the nineteenth century.

• Similarly, for sturdy bodies in later years a strong nutritional foundation must be established early in infancy.

• For this assurance, BIOLAC safely and simply furnishes nutritional elements for optimum health. Among the other essential nutrients are valuable proteins of milk, an outstanding source of *all the essential amino acids* ...the indispensable foundation stones for sound tissues.

• Indeed, BIOLAC is "baby talk" for a good square meal.

BORDEN'S PRESCRIPTION PRODUCTS DIVISION
350 MADISON AVENUE • NEW YORK 17, N. Y.

ACCEPTED AMERICAN MEDICAL ASSN.

Biolac

The foundation is the thing!



Biolac is a liquid modified milk, prepared from whole and skim milk with added lactose, and fortified with thiamine, concentrate of vitamins A and D from cod liver oil, and iron citrate; only Vitamin C supplementation is necessary. Evaporated, homogenized and sterilized. Available in 13 fl. oz. tins at all drug stores.

Quickly prepared... easily calculated: 1 fl. oz. Biolac to 1½ fl. oz. water per lb. of body weight.

CHANGES IN MEMBERSHIP

(Continued from Page 20)

Grossblatt, Jacob, *North Hollywood*
Howard, Merildeen W., *North Hollywood*
Hurst, Martin J., *Inglewood*
Imerman, Harold Maurice, *Beverly Hills*
Johnson, Fordyce, *Pasadena*
Johnson, Richard Melvin, *Long Beach*
Kahlstrom, Samuel C., *Los Angeles*
Korn, Bernard J., *San Pedro*
Krivonos, Abraham F., *Los Angeles*
Kurman, Rachelle L., *Los Angeles*
Lauterbach, Janina S., *Los Angeles*
Leo, Sidney D., *Beverly Hills*
Levy, Marvin Shephard, *Beverly Hills*
Lynn, Theodore A., *Los Angeles*
McReynolds, Chester C., *Los Angeles*
Miller, Walter, *Los Angeles*
Molle, S. Albert, *Beverly Hills*
Moriarty, John D., *Los Angeles*
Morton, John Harold, *Los Angeles*
Movius, Herbert J., II, *Hollywood*
Munk, Ivan Arthur, *El Monte*
Nash, Acatius N., *Los Angeles*
Neale, Roderick M., *Beverly Hills*
Nerger, Vernon Durward, *Los Angeles*
Nicola, Quintus, *Alhambra*
Nisenson, Aaron, *Los Angeles*
Northrup, William Frederick, Jr., *Pasadena*
Nugent, Maurice W., *Los Angeles*
Olkon, David Mortimer, *Los Angeles*
Ong, John Raymond, Jr., *Los Angeles*
Quillen, George Howard, *Wilmington*
Reed, Joseph Arthur, *Pasadena*
Rossman, Phillip L., *Los Angeles*

(Continued on Page 28)

THE POTTENGER SANATORIUM and CLINIC

For Diseases of the Chest ***Monrovia, California***

AN INSTITUTION FOR DIAGNOSIS AND THERAPY

(Established 1903)

CHOICE rooms and bungalows. Rates moderate and include routine medical and nursing services, interim physical, X-ray and laboratory examinations, ordinary medicines and pneumothorax. A charge is made for the first complete examination.

In the foothills of the Sierra Madre Mountains, thirty-five miles from the ocean. Surrounded by beautiful gardens.

Close medical supervision. Aside from tuberculosis, special attention is given to asthma, bronchiectasis, lung abscess and kindred diseases. Separate institution for children.

For particulars address:

THE POTTENGER SANATORIUM AND CLINIC · Monrovia, California

ACCIDENT • HOSPITAL • SICKNESS

INSURANCE

FOR PHYSICIANS, SURGEONS, DENTISTS EXCLUSIVELY

ALL PREMIUMS COME FROM — PHYSICIANS SURGEONS DENTISTS — ALL CLAIMS GO TO

$ 5,000.00 accidental death $25.00 weekly indemnity, accident and sickness	$ 8.00 Quarterly
$10,000.00 accidental death $50.00 weekly indemnity, accident and sickness	$16.00 Quarterly
$15,000.00 accidental death $75.00 weekly indemnity, accident and sickness	$24.00 Quarterly
$20,000.00 accidental death $100.00 weekly indemnity, assident and sickness	$32.00 Quarterly

ALSO HOSPITAL EXPENSE FOR MEMBERS' WIVES AND CHILDREN

86c out of each $1.00 gross income used for members' benefits

$3,000,000.00 *Invested Assets* **$14,000,000.00** *Paid for Claims*

$200,000.00 deposited with State of Nebraska for protection of our members

Disability need not be incurred in line of duty—benefits from the beginning day of disability

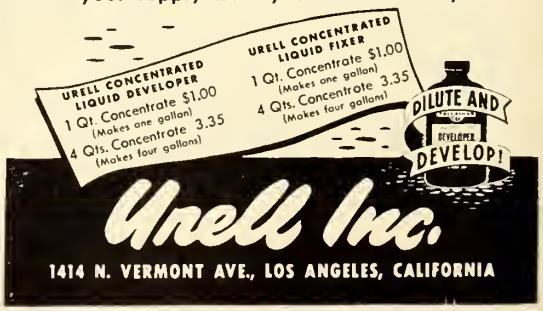
PHYSICIANS CASUALTY ASSOCIATION
PHYSICIANS HEALTH ASSOCIATION

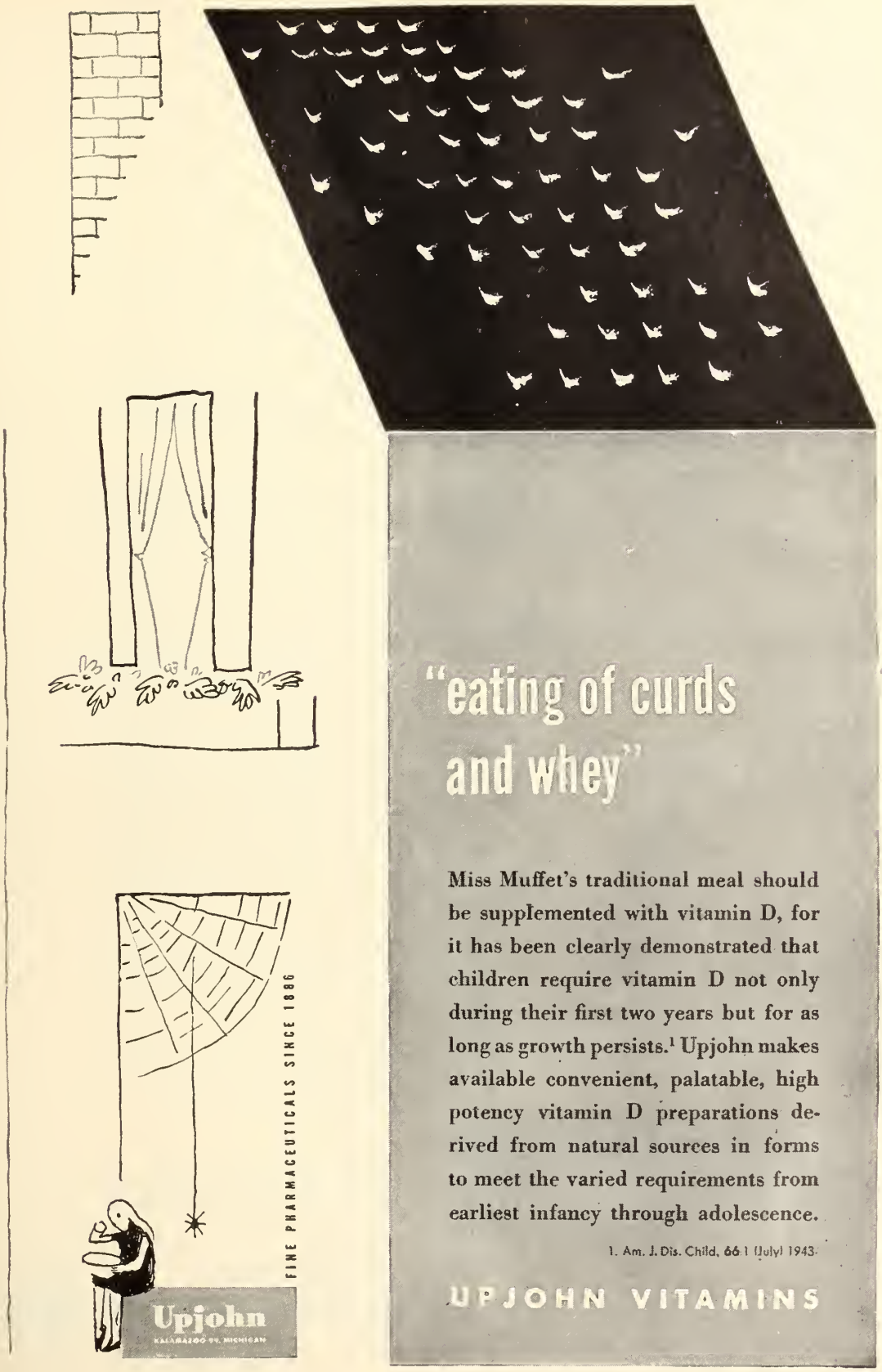
45 years under the same management

400 First National Bank Building, Omaha 2, Nebraska



TIME is an essential factor in radiographic processing: once lost, it is never recovered! If you're "caught short" on developing and fixing solutions, Urell Concentrated X-Ray Solutions can help. How? Simply "Dilute and Develop." No powder-mixing, no heating, no dissolving of solids, no waiting. Urell Solutions are reliable, safe and long-lasting. X-Ray Technicians everywhere have stopped gambling with time...by using Urell Solutions. Order your supply from your dealer today.




"eating of curds and whey"
Miss Muffet's traditional meal should be supplemented with vitamin D, for it has been clearly demonstrated that children require vitamin D not only during their first two years but for as long as growth persists.[1] Upjohn makes available convenient, palatable, high potency vitamin D preparations derived from natural sources in forms to meet the varied requirements from earliest infancy through adolescence.
1. Am. J. Dis. Child. 66:1 (July) 1943.
UPJOHN VITAMINS
FINE PHARMACEUTICALS SINCE 1886
Upjohn
KALAMAZOO 99, MICHIGAN



New Strength

FOR THE FAILING MYOCARDIUM . . .

and in a Matter of Hours

Six tablets of Digitaline Nativelle (0.2 mg. each) usually enable the heart in the throes of decompensation to cope again with the circulatory demands. This total oral digitalizing dose, taken at one time, effects complete digitalization in 6 to 8 hours.

The action of Digitaline Nativelle, the original digitoxin, is virtually free from locally induced nausea and vomiting, yet produces all the desirable cardiotonic influence of whole leaf digitalis from which it is extracted. Initial maintenance dose, 0.1 mg. daily; in some patients 0.05 mg. suffices, in others, 0.2 mg. daily may be required.

ACCEPTED AMERICAN MEDICAL ASSN Council on Pharmacy and Chemistry

How Supplied

Digitaline Nativelle is available through all pharmacies in 0.1 mg. tablets (pink) and 0.2 mg. tablets (white) in bottles of 40 and 250, and in ampules of 0.2 mg. (1 cc.) and 0.4 mg. (2 cc.) in packages of 6 ampules and 50 ampules. Oral and intravenous dosage identical.

Physicians are requested to send for a complimentary copy of the brochure "Management of the Failing Heart" and a clinical sample of Digitaline Nativelle sufficient to digitalize one patient.

VARICK PHARMACAL COMPANY, INC.
A Division of E. Fougera & Co., Inc.
75 Varick Street, New York 13, N. Y.

DIGITALINE NATIVELLE

REG. U. S. PAT. OFF.

THE ORIGINAL DIGITOXIN

Why "Premarin"
in Menopausal Therapy?
Because it is Orally Effective...
Rarely elicits Toxic Reactions...
Produces rapid
Symptomatic Relief...



"Premarin" is a naturally occurring conjugated estrogen which is therapeutically effective when administered by mouth. It usually produces prompt remission of distressing symptoms, and provides an emotional uplift and feeling of well-being which is gratifying to the patient.

Toxic effects or even minor unpleasant side reactions are relatively rare.

Available as:

Tablets of 1.25 mg.—bottles of 20, 100 and 1000.

Tablets of 0.625 mg.—bottles of 100 and 1000.

ACCEPTED AMERICAN MEDICAL ASSN Council on Pharmacy and Chemistry

A palatable liquid—containing 0.625 mg. in each teaspoonful (4 cc.), in 4-ounce bottles.

Conjugated estrogens (equine)

REG U S PAT OFF "Premarin"

Ayerst

Ayerst, McKenna & Harrison Ltd.

22 EAST 40TH STREET, NEW YORK 16, N.Y.

CHANGES IN MEMBERSHIP

(Continued from Page 24)

Ryan, Harry Osbourne, *Pasadena*
Sacks, Harold J., *Beverly Hills*
Saltsman, John Andress, *Long Beach*
Sawyer, James G., *Los Angeles*
Seal, Herman, *Encino*
Silver, Henry, *Los Angeles*
Smith, Seth Willard, *Whittier*
Stacey, John Wallace, *Los Angeles*
Stoll, Edward M., *Long Beach*
Strickland, Donald Ames, *Inglewood*
Watenmaker, William, *Olive View*
Witt, Everett J., *Tujunga*
Woltmann, George Rogerson, *Glendale*
Zack, William J., *Beverly Hills*
Zaik, Edward Joseph, *Los Angeles*

San Joaquin County (7)

Allanson, Patrick, *Murphys*
Brunetta, Natale, *Stockton*
Gates, Emily H., *Stockton*
Gough, Emile J., *Stockton*
Sonnenberg, Arthur, *Tracy*
Weitz, Marion G., *Tracy*
Winter, Robert C., *Manteca*

San Luis Obispo County (4)

Bossert, Robert H., *Paso Robles*
Kotin, Paul, *San Luis Obispo*
Smith, James Barry, *San Luis Obispo*
Walters, Richard D., *Atascadero*

San Mateo County (1)

Case, Robert B., *Redwood City*

(Continued in Back Advertising Section, Page 34)

SAINT FRANCIS HOSPITAL

A General Hospital With Accommodations for Three Hundred Patients And Operating* THE MEDICAL OFFICE *BUILDING, Facing the Hospital
Tenancy Restricted to the Medical and Dental Professions

TRUSTEES—C. R. Bricca, M.D., *President;* T. H. O'Connor, M.D., *First Vice-President;* C. A. Walker, M.D., *Second Vice-President;* Carl L. Hoag, M.D., *Secretary-Treasurer;* C. P. Thompson, M.D., *Assistant Secretary-Treasurer;* Ray H. Kistler, M.D.; George W. Pierce, M.D.; Frank B. Hand, M.D.; W. W. Washburn, M.D.; Thomas E. Shumate, M.D.; Cavins D. Hart, M.D.

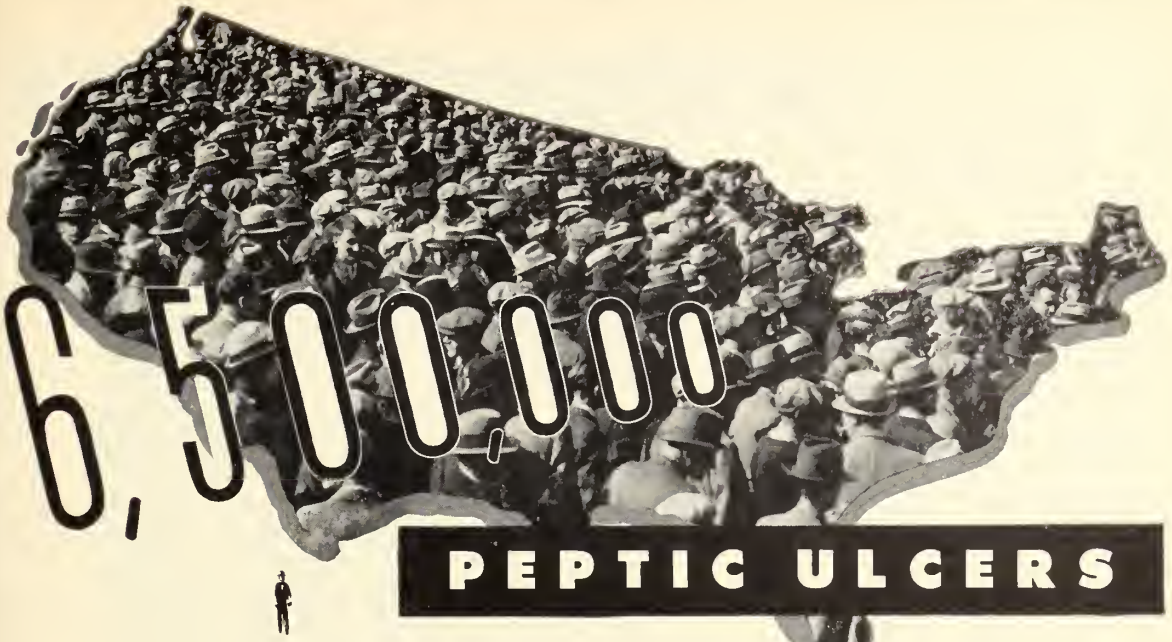
Superintendent, O. N. BOOTH

Address Communications

SAINT FRANCIS HOSPITAL

Bush and Hyde Streets ***Telephone*** **PROSPECT 4321** **San Francisco**







A recent conservative estimate places the incidence of peptic ulcer at 5 per cent of the population, or about 6,500,000 persons in the United States.* The great majority of this vast group of patients need a year-in and year-out program of rest, diet and acid neutralization.

Creamalin, the first aluminum hydroxide gel, readily and safely produces sustained reduction in gastric acidity. With Creamalin there is no compensatory reaction by the gastric mucosa, no acid "rebound," and no risk of alkalosis. Through the formation of a protective coating and a mild astringent effect, nonabsorbable Creamalin soothes the irritated gastric mucosa. Thus it rapidly relieves gastric pain and heartburn, and helps in the healing of peptic ulcers as well as in the prevention of ulcer recurrence.

Winthrop CHEMICAL COMPANY, INC.
NEW YORK 13, N. Y. • WINDSOR, ONT.

CREAMALIN
Trademark Reg. U. S. Pat. Off. & Canada
The first brand of Aluminum hydroxide gel

Supplied in 8 fl. oz., 12 fl. oz. and 16 fl. oz. bottles.

*Bureau of Health Education, A.M.A. *Hygeia*, 24:352, May, 1946.

The "One Prescription" Food for Bottle-fed Infants.....





- for full-term or premature infants
- from birth to end of bottle feeding
- complemental to mother's milk, or exclusively

POWDER

LIQUID

Start with either and change from one to the other, to suit individual requirements. Powder form is especially convenient when traveling.

Many physicians prescribe Baker's Modified Milk for the majority of their bottle-fed infant cases. They prefer Baker's Modified Milk because few cases require any change at any time, except increased quantity as the baby grows older.

Baker's Modified Milk is a time-saver for the doctor and for the mother, for it is a completely prepared food that requires no complicated feeding directions (just dilute with water, previously boiled) and therefore reduces the possibility of error.

Among the many other reasons for the wide prescription of Baker's Modified Milk are:

Baker's Modified Milk is a complete food (except for Vitamin C) that closely conforms to human milk in nutritional results . . .

. . . is well tolerated by both premature and full-term infants . . .

. . . may be used either complemental to or entirely in place of human milk . . .

. . . is helpful in correcting regurgitation, constipation, loose or too-frequent stools . . .

Just leave instructions at the hospital. The obstetrical supervisor will be glad to put your next bottle-fed infant on Baker's Modified Milk.

• Baker's Modified Milk is made from tuberculin-tested cows' milk in which most of the fat has been replaced by animal and vegetable oils with the addition of lactose, dextrose, gelatin, iron ammonium citrate, vitamins A, B_1 and D. Not less than 400 units of vitamin D per quart.

Complete information and samples gladly sent to physicans on request.

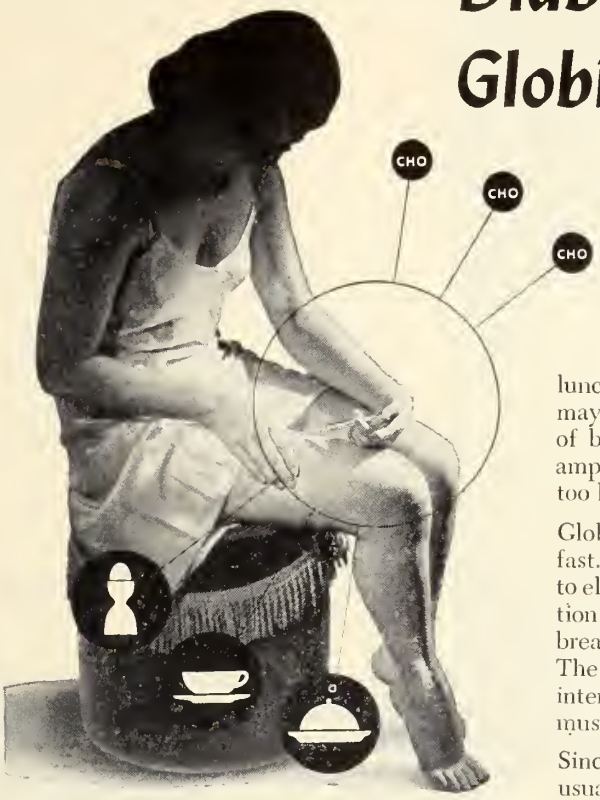
ACCEPTED AMERICAN MEDICAL ASSN. Council on Foods and Nutrition

BAKER'S MODIFIED MILK

THE BAKER LABORATORIES, INC., CLEVELAND, OHIO

BRANCH OFFICES: SAN FRANCISCO, LOS ANGELES and DENVER

Diabetes, diet and Globin Insulin . . .



THE ADVANTAGES of one-injection control of diabetes can, through adjustment of diet and dosage, be made available to the majority of patients requiring insulin. In view of the convenience and freedom afforded by the unique intermediate action of 'Wellcome' Globin Insulin with Zinc, the necessary adjustment is well worth while. Though not a complicated procedure, the regulation of carbohydrate balance warrants reiteration because of its importance:

SOME FACTS ABOUT DIETARY ADJUSTMENT: The distribution of carbohydrate in the meals must be adjusted in accord with the type of action exhibited by Globin Insulin, which is intermediate between regular and protamine zinc insulin. Proper carbohydrate distribution with proper insulin timing is essential; lack of balance may lead to poor control or to an erroneous impression of the characteristics of Globin Insulin.

A good carbohydrate distribution for the patient on Globin Insulin is to divide the total carbohydrate per day into 1/5 at breakfast, 2/5 at lunch and 2/5 at suppertime. This initial diet may be adjusted in accord with the indications of blood sugar levels and urinalyses. (For example, a low blood sugar before supper indicates too little carbohydrate for lunch or vice versa.)

Globin Insulin is ordinarily given before breakfast. Onset of action is usually sufficiently rapid to eliminate the need for a supplementary injection of regular insulin. However, the amount of breakfast carbohydrate should not be too large. The right amount, as well as the optimal time interval between the injection and breakfast, must of course be determined for each patient.

Since the maximum action of Globin Insulin usually occurs in the afternoon or early evening, hypoglycemia is sometimes noted at this time. As a guard against it, the carbohydrate content of the noon meal may be increased, or a midafternoon lunch provided. Thus the original distribution of 1/5, 2/5 and 2/5 might, for example, require adjustment to 2/10, 5/10 and 3/10 or to 2/10, 4/10, 1/10 and 3/10. Once the balance of carbohydrate intake and insulin timing has been established, the patient must be impressed with the importance of adhering to the regimen.

'Wellcome' Globin Insulin with Zinc is a clear solution, comparable to regular insulin in its freedom from allergenic properties. Available in 40 and 80 units per cc., vials of 10 cc. Accepted by the Council on Pharmacy and Chemistry, American Medical Association. Developed in The Wellcome Research Laboratories, Tuckahoe, New York. U.S. Patent No. 2,161,198. LITERATURE ON REQUEST.

'Wellcome' Trademark Registered



BURROUGHS WELLCOME & CO. (U.S.A.) INC., 9 & 11 EAST 41ST STREET, NEW YORK 17, N.Y.



UNDERPRIVILEGED RAT

—SOCIAL PROBLEM

In his native habitat, this poor rat (left) would present a major social problem. He's underprivileged. He never had a chance, because since birth, he has been kept on a diet deficient in Riboflavin. As a consequence, he's below normal in size, and soon sores will develop around his mouth and snout. He'll probably become baldheaded, and his vision will be obscured with cataracts.



Luckily, the problems of the underprivileged rat could be solved with adequate, controlled dosages of IVC Riboflavin (B_2). In a relatively short time he would take on the appealing, intelligent appearance of the healthy Wistar rat shown with him.

These dramatic comparisons are part of the routine checks made endlessly in IVC's modern biological laboratories. They help determine the purity and potency of IVC pharmaceuticals. Whenever patients show symptoms of Riboflavin deficiency—lesions of the ears, nose, mouth and tongue—it is assuring for the physician to know that vitamin products bearing the IVC seal are kept, through stringent testing, faithful to label claims. Prescribe them with confidence.



INTERNATIONAL VITAMIN DIVISION

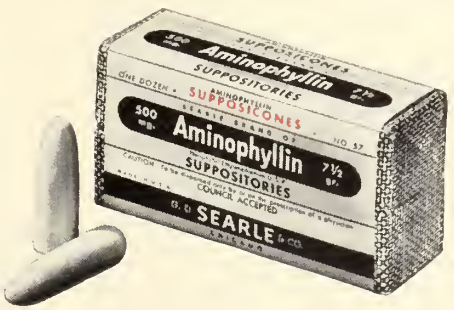
American Home Products Corporation • 22 E. 40th St., New York 16, N. Y.
Chicago • Los Angeles

IVC

REG. U. S. PAT. OFF.

World's Largest Manufacturer of Vitamin Products Exclusively

for prolonged optimum effect:



Aminophyllin Supposicones

(SEARLE BRAND OF AMINOPHYLLIN SUPPOSITORIES)

The improved Aminophyllin Supposicone developed by Searle Research provides an excellent vehicle for prolonged and complete absorption of the contained medicament (7½ gr. of Searle Aminophyllin*).

Supposicones are unlike all suppositories known heretofore—the specially prepared base results in prompt disintegration in the rectum at body temperature, yet no refrigerated storage is necessary.

Aminophyllin Supposicones are nonirritating to the rectal mucosa—no anesthetic is required—and they are properly sized and shaped for easy insertion and retention.

ACCEPTED AMERICAN MEDICAL ASSN Council on Pharmacy and Chemistry

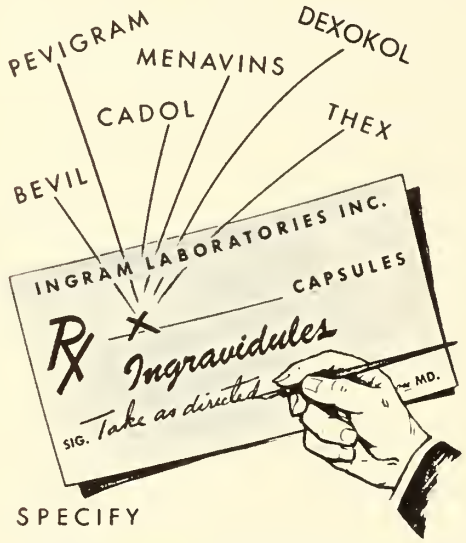
In boxes of 12.

**Searle Aminophyllin contains at least 80% of anhydrous theophyllin. Supposicones is the registered trademark of G. D. Searle & Co., Chicago 80, Illinois.*

SEARLE

RESEARCH IN THE SERVICE OF MEDICINE

FOR
DEPENDABILITY



SPECIFY
"Ingravidules"

Ingram Laboratories, adhering strictly to a general policy of medical ethics, presents a line of thin-walled, quickly soluble, gelatin capsules—DISTINCTLY PROFESSIONAL, designed especially for pharmaceutical prescription compounding.

Respecting the close relationship between Doctor and patient, Ingravidules, because of their simplicity in design, presents a line of superior quality products for individual capsule medication and recommended for use only by prescription by the physician.

* ***'Ingravidules' is a trade name of Ingram Laboratories, Inc., used to designate a brand of capsule medications for oral administration.***

INGRAM
LABORATORIES, INC.
330 FRONT STREET • SAN FRANCISCO 11

CHANGES IN MEMBERSHIP

(Continued from Front Advertising Section, Page 28)

Soluno County (1)

Elston, Martin P., *Vallejo*

ASSOCIATE MEMBERS (3)

Fife, William S., *San Joaquin County*
Frost, David, *Alumeda County*
Larsen, Loren, *Alameda County*

RETIRED MEMBERS (7)

Burnham, Clark J., Sr., *Alumeda County*
Campbell, Robert A., *Los Angeles Coanty*
Coffey, Grundy C., *Ventura County*
Heinatz, Marie A., *Alumeda County*
Holt, C. Zeno, *Los Angeles County*
Lacey, Martin J., *Alamedu County*
Thomas, Benjamin, *Alameda County*

TRANSFERS (19)

Allison, Ray L., from *Riverside County* to *Los Angeles County*

Baisinger, Cecil F., from *Santa Barbura County* to *Riverside County*

Benteen, Frederick Harry, from *Placer-Nevada-Sierra County* to *Alameda County*

Canfield, Merritt C., from *Imperial County* to *San Diego County*

Cullen, Edward Russell, from *San Francisco County* to *Los Angeles County*

Denny, Lorrin, from *San Diego County* to *Yuba-Sutter-Colusa County*

Doyle, Leo W., from *San Francisco County* to *Alameda County*

Goldman, Alfred, from *San Francisco Coanty* to *Los Angeles County*

Hermann, Walter W., from *Placer-Nevada-Sierra County* to *Alameda County*

Hodgin, Robert, from *San Bernardino County* to *Yuba-Sutter-Colasa County*

Kalfus, Joseph Leland, from *Sunta Burbaru County* to *Los Angeles County*

McKnight, W. B., from *Lassen-Plumas-Modoc County* to *Alamedu Coanty*

McNearney, J. J., from *Merced County* to *Los Angeles County*

Merritt, Robert E., from *San Francisco County* to *San Mateo County*

Ostendorph, John E., from *San Diego County* to *Los Angeles County*

Ryan, Bernard F., from *Los Angeles County* to *Alameda County*

Salisbury, Peter F., from *San Francisco Coanty* to *Los Angeles County*

Sleath, Jack C., from *San Francisco County* to *San Lais Obispo County*

Torre, Walter, from *San Francisco County* to *San Mateo County*

IT IS
GOOD PRACTICE

. . . in judging the irritant properties of cigarette smoke . . . to base your evaluation on scientific research. In judging *research,* you *must* consider its *source**.

PHILIP MORRIS claims of superiority are based *not* on anonymous studies, but on research conducted only by competent and reliable authorities, research reported in leading journals in the medical field.

Clinical as well as laboratory tests have shown PHILIP MORRIS to be definitely and measurably less irritating to the sensitive tissues of the nose and throat. May we send you reprints of the studies?



PHILIP MORRIS

PHILIP MORRIS & CO., LTD., INC.,
119 FIFTH AVENUE, N. Y.

**Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154*
Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60
Proc. Soc. Exp. Biol. and Med., 1934, 32, 241
N. Y. State Journ. Med., Vol. 35, 6-1-35, No. 11, 590-592.

TO THE PHYSICIAN WHO SMOKES A PIPE: We suggest an unusually fine new blend—COUNTRY DOCTOR PIPE MIXTURE. Made by the same process as used in the manufacture of Philip Morris Cigarettes.

DO PHYSICIANS PRESCRIBE BEER?

Some interesting answers to this question were disclosed in a nation-wide survey conducted by the Modern Science Institute. The results of this survey appear in Bulletin 1246-2, issued by United States Brewers Foundation. You may obtain a copy by addressing the Foundation at 21 East 40th Street, New York, N. Y.

ACME BREWERIES, San Francisco · Los Angeles

IT'S THE AGE OF ACME



San Francisco Surgical Co.

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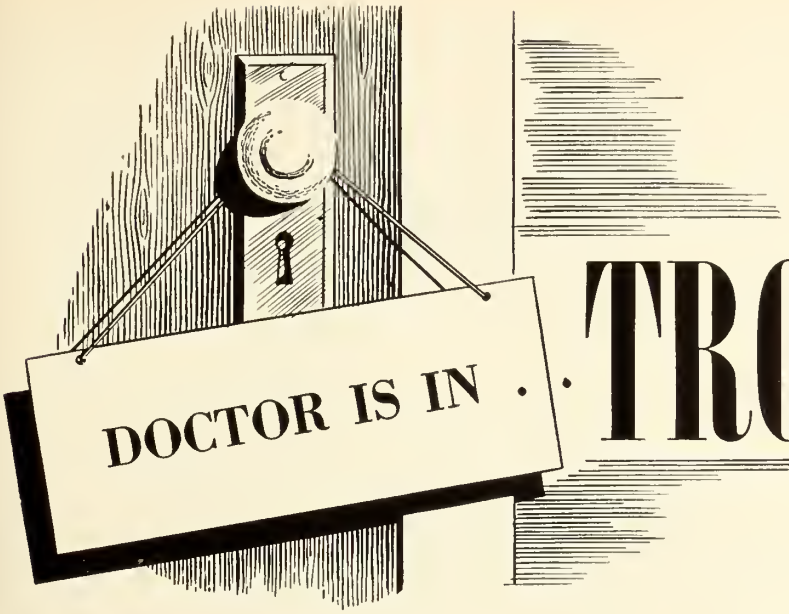
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RADIOACTIVE IODINE ARRESTED CANCER IN HYPERTHYROID MAN

Radioactive iodine was effective in the treatment of a man with a malignant thyroid gland tumor, according to three New York investigators writing in the December 7 issue of *The Journal of the American Medical Association.*

The authors are S. M. Seidlin, M.D., L. D. Marinelli, M.A., and Eleanor Oshry, B.S., from the Medical Division and Department of Medical Physics of the Montefiore Hospital and the Physics Department of the Memorial Hospital.

The investigators state that the patient, who in 1923 had his thyroid removed, "was in apparent good health for 15 years." In 1939 he suddenly showed all the symptoms of an overactive thyroid, such as nervousness, loss of weight and a rapid beating of the heart. In addition, severe pains developed in the lower back and radiated down the legs. Examination revealed a malignant tumor which had spread from remaining thyroid tissue.

Subsequently, other cancerous tumors were found in the lungs, thigh bone, second rib on the left side, small intestine and skull. In 1943 treatment with radioactive iodine was begun after x-ray and drugs proved ineffective. It was administered by mouth in the form of sodium iodide in water. "Definite and lasting clinical improvement followed," state the authors.

In 1944 and in 1945 additional treatment with radioactive iodine was given with a "resultant disappearance of pain, increase in weight and progressive change in all clinical criteria in the direction of hypothyroidism [decrease in thyroid activity]. Roentgenographic [x-ray] evidence pointed to an arrest if not a regression of the disease," states *The Journal* article.

In conclusion the investigators say that "radioactive iodine seems to be an effective therapeutic agent in the control of this type of tumor."

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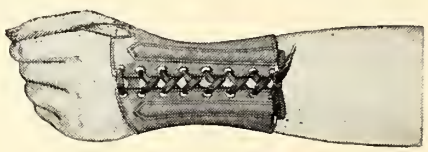
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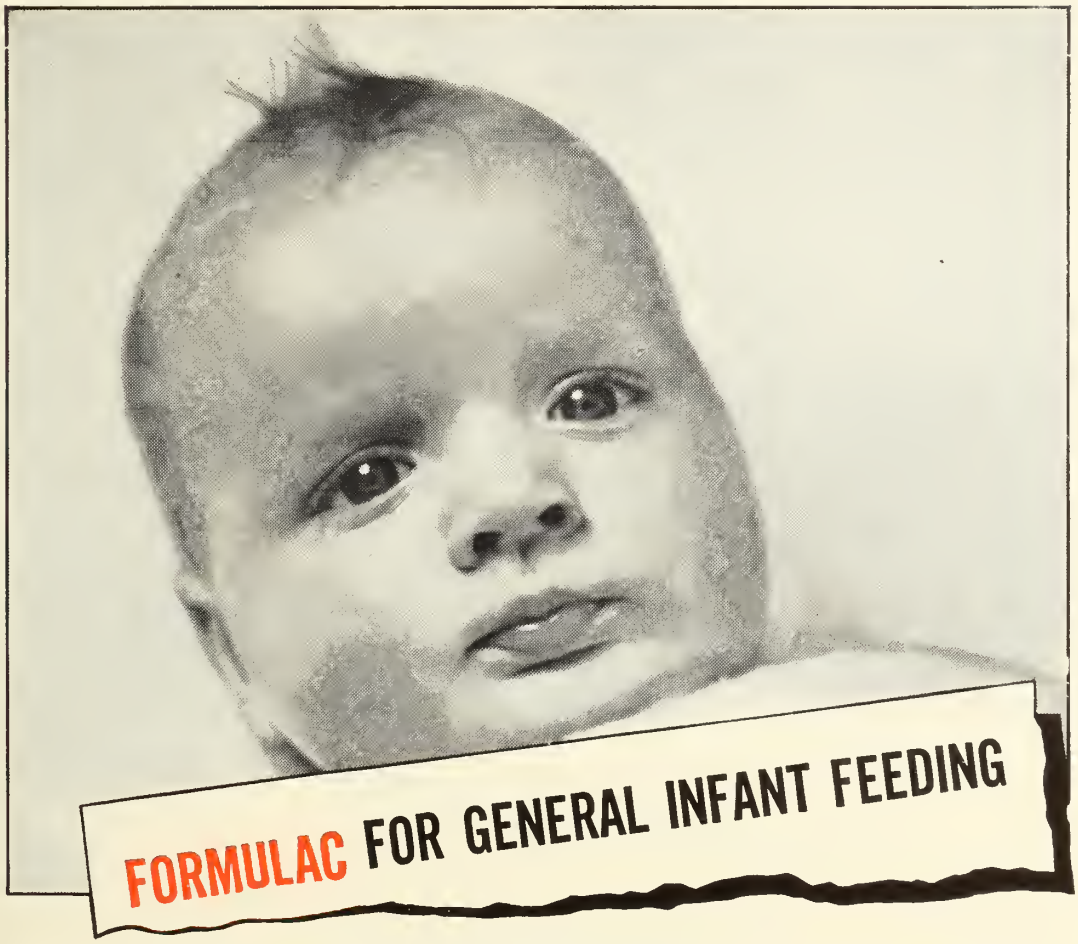
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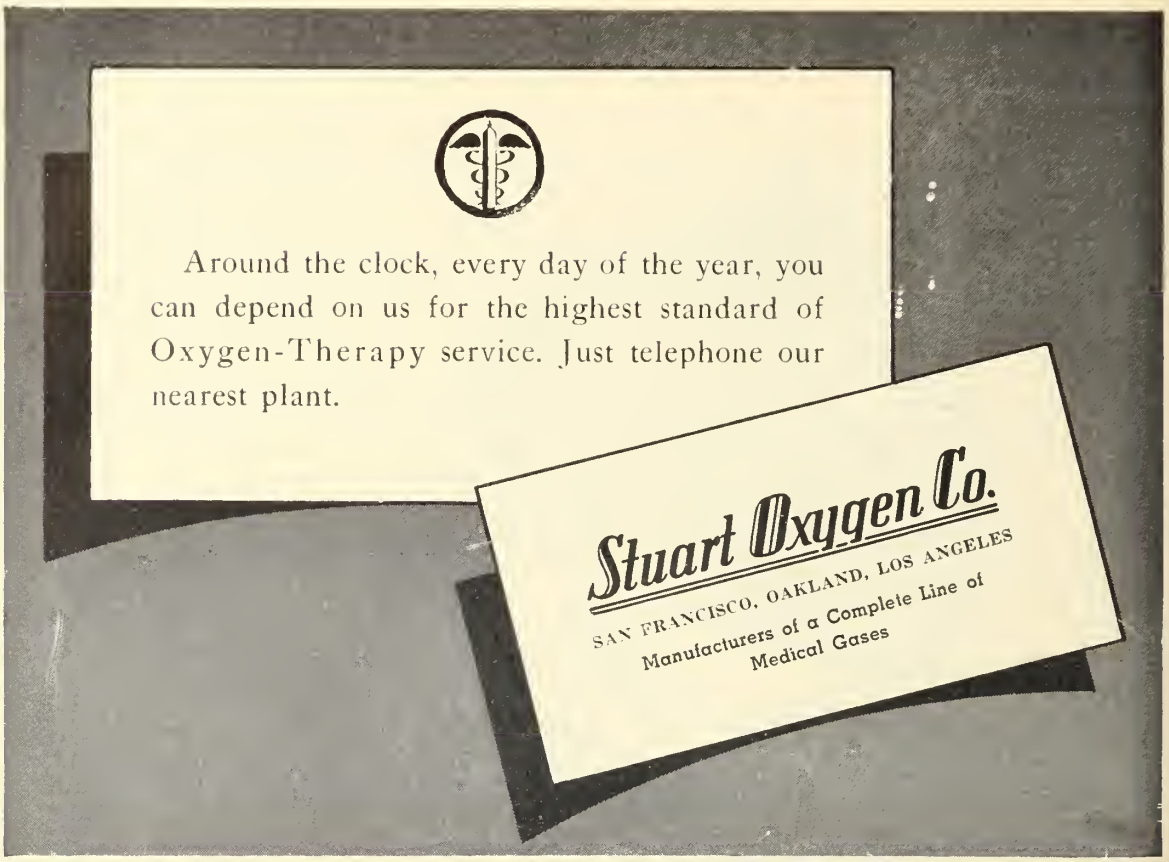
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By Frederick M. Scatena, M.D.
Secretary-Treasurer

Board Proceedings

The Board held oral examinations at the Board Office in San Francisco, January 11 and 12, 1947, with about one hundred applicants appearing.

The total number of original applications filed for all types of certificates issued by the Board totaled 2,504 for the year 1946. The total number of original certificates issued for all classes during the same period was 2,059.

A representative of the California Board of Medical Examiners attended a meeting of the Federation of State Medical Boards at the Palmer House in Chicago, February 10 and 11. The representative read a paper on Medical Licensure in California and also took part in a panel discussion of matters pertaining to licensure.

NEWS

"Rules On Use Of 'Physician' Term—The use of the term 'chiropractic physician' by the chiropractic profession in California is illegal, Attorney General Robert W. Kenny ruled today. In an opinion requested by the state board of chiropractic examiners, Kenny said the term 'physician' could not be used except by 'persons holding a valid certificate as a physician and surgeon issued by the Board of Medical Examiners or the Board of Osteopathic Examiners under appropriate sections of the Business and Professions Code." (Porterville, Calif., *Recorder*, November 18, 1946.)

"Dr. Housman Loses Appeal—Dr. Nathan S. Housman, one-time convict, lost another legal round yesterday in his attempt to force the State Board of Medical Examiners to restore his license to practice . . . Superior Judge Herbert C. Kaufman denied the doctor's application for a writ of mandate which sought to compel the board to reinstate him . . . Judge Kaufman found that Housman's record since his release from prison in 1942 has 'been negative in character' and said: 'The petitioner has not followed any occupation, either allied to his profession or otherwise; he presented no substantial evidence of rehabilitation. He has not fairly met the burden of proof cast upon him to establish that he is entitled to have his license reinstated.'. . . Doctor Housman was convicted in 1941 on charges of perjury and presentation of false evidence in a narcotic permit case . . . The doctor's attorney, Booth B. Goodman, said he was as yet undecided about an appeal. The board has twice turned down Housman's reinstatement plea." (San Francisco, Calif., *Examiner*, January 7, 1947.)



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CHARLEY HORSE NOT A MUSCLE CRAMP

A Charley horse, the bane of baseball players and other athletes, is not a muscle cramp, but an injury to a muscle, according to the November 30 issue of *The Journal of the American Medical Association.*

A Charley horse or muscle injury and a cramp are of entirely different pathologic origins, the article says, adding that massaging is not advisable for a Charley horse, but is advisable for a cramp.

In discussing treatment, the article gives this advice: "In the acute stage at the onset of a Charley horse the leg should be packed in ice about the injured area and held quiet for half an hour to an hour. In the acute stage subsequently for about six weeks (a) the leg should be placed at rest in a cast or splint and kept quiet for ten days, the patient continuing to wear the cast for six weeks; (b) diathermy, long wave treatments, should be given daily; (c) heat or contrast baths should be given; gentle motion should be given every few days to prevent stiffness."

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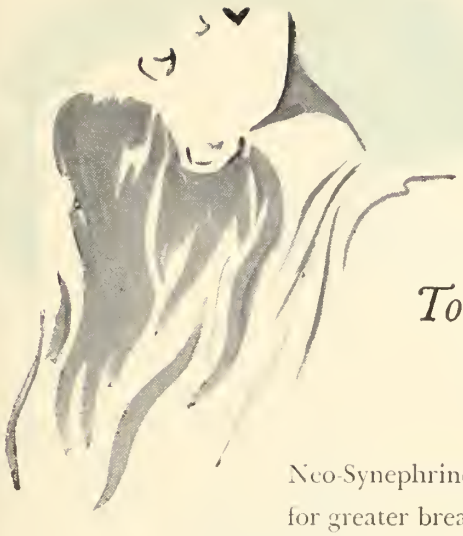
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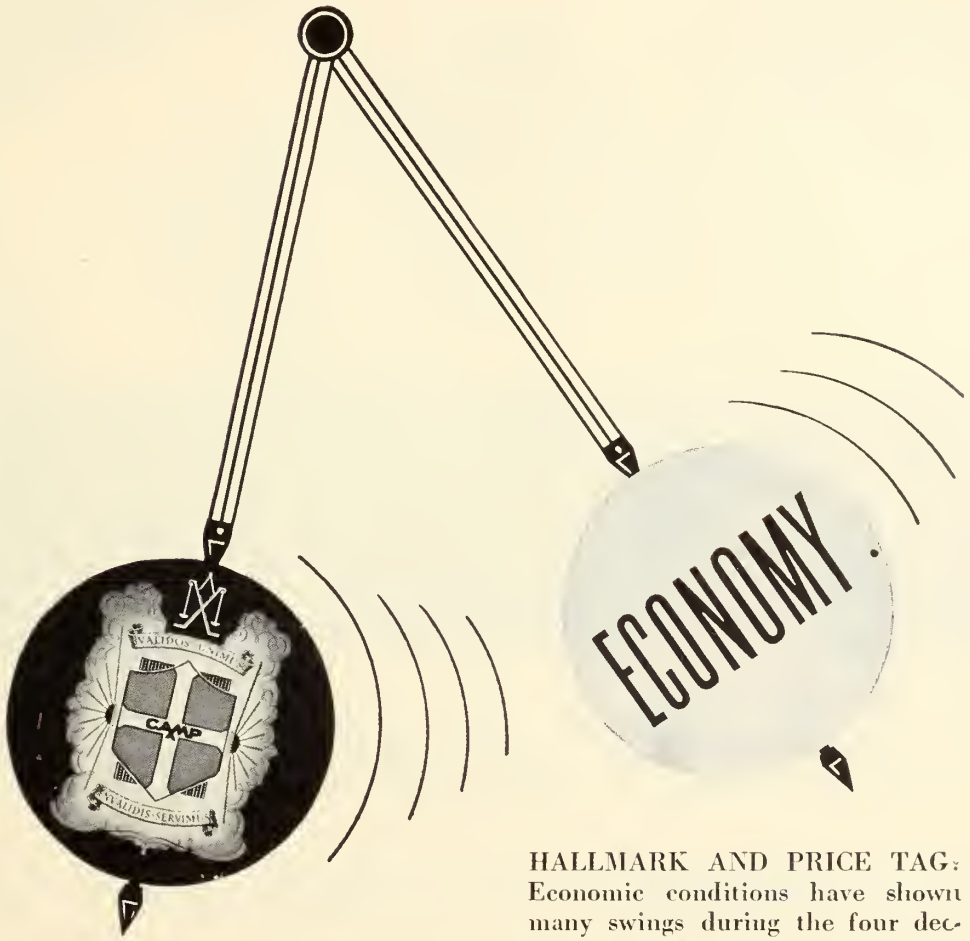
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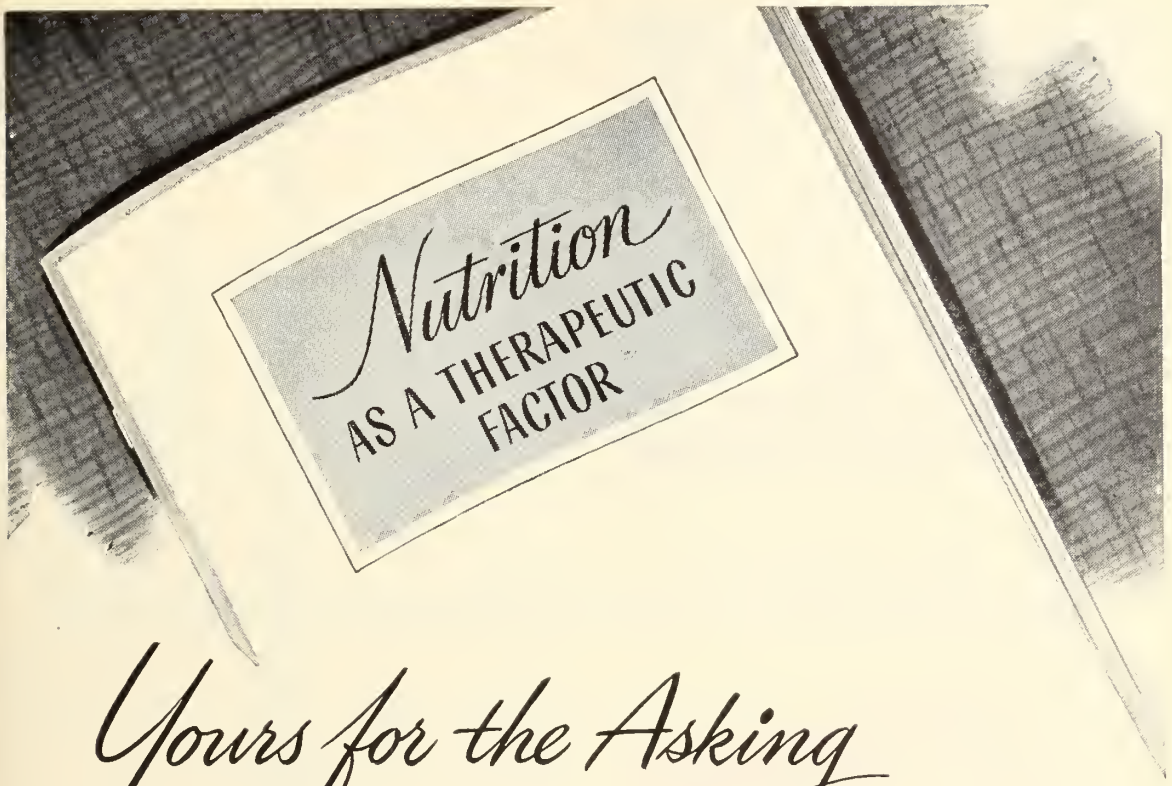
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DOCTOR CLAIMS THERE ARE TWO TYPES OF VENOUS THROMBOSIS

Venous thrombosis, a condition in which the blood clots in the veins, is of two types—thrombophlebitis and phlebothrombosis, according to Alton Ochsner, M.D., of New Orleans. He states that unless there is a differentiation between the two, treatment is "likely to continue to be unsatisfactory."

Writing in the December 7 issue of *The Journal of the American Medical Association*, Dr. Ochsner points out this difference: the blood clot in thrombophlebitis is the result of inflammatory changes and is firmly attached to the vein; the blood clot in phlebothrombosis is the result of tissue injury and can become detached easily from the vein wall.

Thrombophlebitis usually can be diagnosed easily from symptoms such as fever, pain and swelling. The patient's chances of recovery are good, but, if he does not receive effective treatment, complications such as swelling, pain, ulceration of the legs and infection may develop.

In contrast, patients with phlebothrombosis, although apparently not ill, are potential fatalities because of the danger that the clot will become detached and be carried by the blood stream to the lungs where it may act as a plug and cause death.

Phlebothrombosis is caused by two things—an increase in the ability of the blood to clot due to tissue injury and a slowing of the flow of blood as a result of the patient's being confined to bed or having a leg in a cast. Early detection of this condition is possible if the patient is examined for tenderness of the legs following any tissue damage such as an operation.

Dr. Ochsner states that "there is a definite relationship between venous thrombosis and the seasons." This has been pointed out by several other investigators. One of these found the greatest incidence of thrombosis from December to February. He believes that grippal infections are responsible for this difference.

Another group of investigators reported that in a series of 332 cases thrombosis was observed in 32.9 per cent in the winter, 21.9 per cent in the spring, 18.9 per cent in the summer and 20.3 per cent in the fall.

"It is my belief that the increased incidence of venous thrombosis during the winter months is due to the vasospastic [causing contraction of the blood vessels] influence of the cold weather," states the author. "This explains the difference between the incidence of venous thrombosis observed in the northern and in the southern clinics. My associates and I showed that the incidence of venous thromhosis in the northern clinics was almost double that in the southern clinics. The average incidence in the northern states was 0.74 per hundred thousand population as contrasted with 0.41 in the southern states."

Several suggestions are made by Dr. Ochsner which, if followed, he believes should prevent the formation of clots in the veins. He says that patients should refrain from smoking for a period of from 10 to 14 days before an operation; overweight patients should reduce before undergoing surgery; any abnormal state of the blood, such as anemia, should be corrected. After the operation the author favors leg exercises and deep breathing to increase the circulation.

For the treatment of thrombophlebitis the author suggests the use of a local anesthetic, procaine hydrochloride. "The pain is relieved instantly, the temperature falls rapidly and the swelling subsides within a few days," he writes. "My experience has shown that the relief of pain is complete and permanent in 90 per cent of the patients,

(Continued on Page 54)



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Cawthorne, T.: The Treatment of the Common Cold, Clin. Sup. to King's College Hosp. Gaz. 18:iii.

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(Continued from Page 50)

whereas in 10 per cent a second block [of the local involuntary nerve centers] is necessary to give permanent relief."

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VITAMIN B COMPLEX FRACTION EFFECTIVE FOR TICK FEVER

A drug, belonging to the vitamin B complex group, has been found highly effective in the treatment of Rocky Mountain spotted fever, a tick-borne disease, which is often severe and sometimes fatal, according to four investigators writing in the December 14 issue of *The Journal of the American Medical Association.*

This study was made through the cooperation of the Delaware, Memorial, St. Francis and Wilmington General Hospitals of Wilmington, Del. The investigators are Lewis B. Flinn, M.D., John W. Howard, M.D., Charles W. Todd, Ph.D., and Elvyn G. Scott, M.T.

The authors cite the Delaware State Board of Health which reported that in the 10 year period from 1936 to

(Continued on Page 58)

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1. Kugelmass, I. N.: Newer Nutrition in Pediatric Practice, p. 345, Lippincott, Philadelphia, 1940.

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Alexander Pope (1688-1744).—From his mother, Pope inherited his sick headaches; from his father his crooked spine. He could hardly stand upright unless laced into a stiff canvas bodice, and he had to wear a kind of fur doublet, so sensitive was he to cold. Yet the "long disease, his life" spurred on rather than daunted his keen intellect. Though there is an undertone of acid bitterness in much of his work, it is less than one would expect from one so hopelessly invalided.—Warner's *Calendar of Medical History.*

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VITAMIN B COMPLEX FRACTION EFFECTIVE FOR TICK FEVER

(Continued from Page 54)

1945, inclusive, they were notified of 50 cases of Rocky Mountain spotted fever. Of those 50 cases, 14 were fatal, a mortality of 28 per cent.

A group of 21 untreated patients studied in the Wilmington, Del., area from 1938 to 1946 had a death rate of 24 per cent. Fifteen of these patients were under 40 years of ago; two died—a mortality of 13 per cent. The authors state that "it is evident, therefore, that in this particular area Rocky Mountain spotted fever is of a fairly severe type."

A series of 10 patients with this disease were treated with para-aminobenzoic acid. Nine of the patients under 40 "responded dramatically," according to the authors.

Comparing these nine treated patients with the 13 untreated patients of the previous series, all under 40 years of age, the authors state:

"The average number of days of fever in the untreated patients was 17.5, as compared to 10.5 for the patients given para-aminobenzoic acid. The untreated patients averaged 20 hospital days; those treated, 13 days. In the treated patients there was a decided clinical improvement 24 hours before the temperature started to drop. The temperature of patients given para-aminobenzoic acid dropped rapidly to normal within two to four days after treatment was begun, whereas in the untreated patients the temperature gradually came down to normal over a period of about 16 hospital days. Coincidental with the lowering of the temperature the rash rapidly faded, and the patient made a prompt clinical recovery."

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(Continued on Page 60)

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VITAMIN B COMPLEX FRACTION EFFECTIVE FOR TICK FEVER

(Continued from Page 58)

disease. The authors point out that this case may serve to illustrate that "para-aminobenzoic acid retards or prevents the spread and proliferation of the rickettsias [bacteria-like parasites] in the body but is not an antidote for any toxin already released and does not repair damage already done. Therefore the beneficial effect of the medicament in late cases is unlikely."

INCREASED MEDICAL KNOWLEDGE HAS CHECKED PROBLEM OF BOILS

Increased knowledge and more effective treatment methods have helped medical science in its fight against boils.

William W. Bolton, M.D., of the Bureau of Health Education, American Medical Association, writing in the current issue of *Hygeia*, states that several conditions have been recognized as productive of boils. "Complicated investigations have shown that in some there is a slight variation from normal in the chemical reaction of the skin, in others excessive collections of secretion, forming a special culture bed for germs, and in still others a slight excess of sugar content in the skin cells, although such individuals are definitely not diabetic."

Among other general conditions found to be responsible for boils are anemia, a run down condition and excessive fatigue. The chronic diseases which may cause boils are nephritis, a disorder of one or both kidneys, tuberculosis and syphilis. It has been stated that a protein-poor diet occasionally may be responsible, or underactivity of the thyroid gland.

Normal skin harbors many germs, the majority of them being harmless. However, germs such as the staphylococcus group which cause boils may be present and cause trouble.

The author states that "invasion of the skin by these germs takes place often through almost invisible breaks. Also, the germs frequently start their trouble within the tiny openings of sweat glands or the special oil producing sebaceous glands. Because the latter are associated with hair follicles, boils are observed most commonly on hairy areas of the skin."

Three ironclad rules are generally followed in the treatment of boils "because there is now full surgical understanding of the way in which boils are fought by the body," states the author. The rules are: (1) never cut a boil too early, if it is to be cut at all; (2) never attempt to squeeze or press out the contents and, (3) if a cut is made, never cut widely.

Dr. Bolton points out that "in the average case all that is needed is a dressing protection. Frequently germ destroying ointments may be indicated, if for no other reason than to prevent spread of infection to adjacent portions of the skin."

In recent years the application of the three important germ-destroying drugs, the sulfonamides, penicillin and streptomycin, has proved effective in many cases of boils. "Another new treatment which has proved satisfactory in numerous instances is the application of x-rays," states the author. "This appears to be most beneficial if given early in the course of boil development, but when even a fully developed boil is x-rayed the cessation of activity is dramatically sudden. Extension halts, and the boil 'opens' almost at once."



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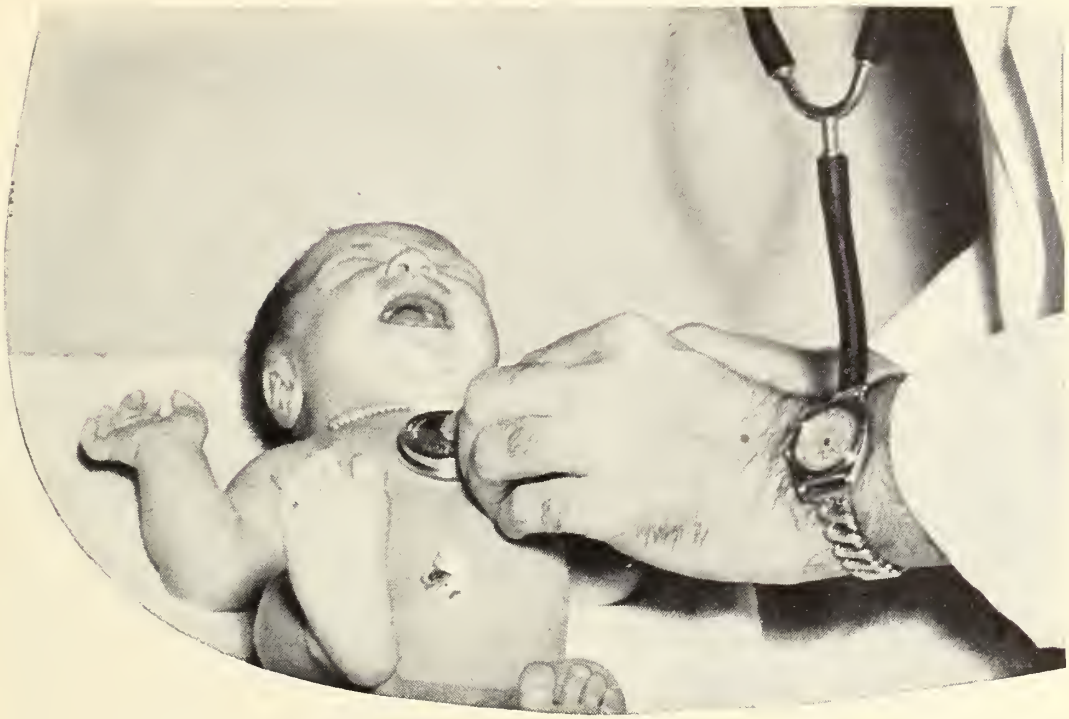
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NORMAL SKIN HARBORS MILLIONS OF GERMS WITH POWER TO HARM

A person's skin harbors millions of bacteria, some beneficial, others with power to produce infections at the first lowering of skin resistance, according to Donald M. Pillsbury, M.D., of Philadelphia.

Writing in the November 23 issue of *The Journal of the American Medical Association,* Dr. Pillsbury, from the Department of Dermatology and Syphilology, University of Pennsylvania Medical School, states that the "normal human skin harbors an enormous number of bacteria which are ordinarily harmless. . . . When the integrity of the human skin is disturbed, harmful bacteria readily become well established residents of the diseased area."

The Army Medical Corps placed skin infections high on its list of disabling diseases. "During the year 1944," states the author, "the number of hospital admissions because of diseases of the skin varied between 3,731 and 10,399 for each 100,000 troop strength in different theaters of operation. These figures do not include admissions to the sick list in field medical stations or dispensaries, in which the number of dermatologic patients varied between 15 and 60 per cent of the total.

"In troops in the United States, the average number of hospital admissions by reason of a cutaneous disease was 42 per thousand troop strength per year, while in overseas stations the average number was almost twice as great, or 80 per thousand troop strength per year."

Although Dr. Pillsbury feels that "certain striking advances in the treatment of cutaneous infection have been made during recent years," he points out that "a non-sensitizing and completely satisfactory method of treatment is not yet available."

Reviewing the present treatment methods, the author

(Continued on Page 66)



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Service to Medicine

NORMAL SKIN HARBORS MILLIONS OF GERMS WITH POWER TO HARM

(Continued from Page 64)

suggests that "in the management of cutaneous diseases which are characterized by inflammatory reaction, it is important to avoid the use of measures which may further irritate the skin and to recognize and treat bacterial invasion promptly. . . . It cannot be emphasized too strongly that the use of chemical irritants or of highly sensitizing compounds on infected, inflamed skin will result in severe reactions, and in many instances may lead to prolongation of partial disability over a period of weeks or months. Instances of this are regularly seen. In particular, tincture of iodine should never be used; it is a cauterant and skin-sensitizer, and too frequently adds to the burden under which the diseased skin is already laboring."

Two rather widely used drugs which have proved to be highly irritating and sensitizing to the skin are penicillin and the sulfonamides. Referring to penicillin, the author states that "the present incidence of sensitivity reactions is apparently over 15 per cent, and this percentage may increase as more persons are exposed to the drug."

In speaking of the sulfonamides Dr. Pillsbury states that "local application of sulfonamides to sites of superficial infection has little or no place in present day therapy. While the development of sensitivity in a significant proportion of patients can be prevented by using sulfonamide ointment only for primary acute superficial infections and for periods of not longer than five days, experience has shown that it is impossible to insure observation of these precautions in practice. Sulfonamides by mouth still retain a definite place in the management of certain acute and chronic infections of the skin and can ordinarily be given without severe reactions, provided that reasonable precautions are exercised."

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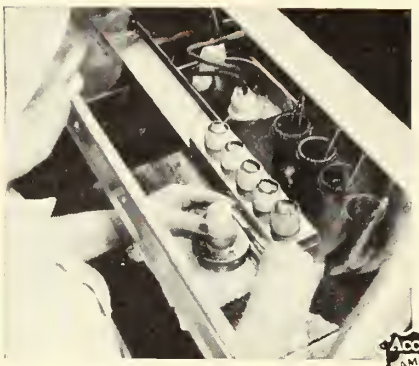
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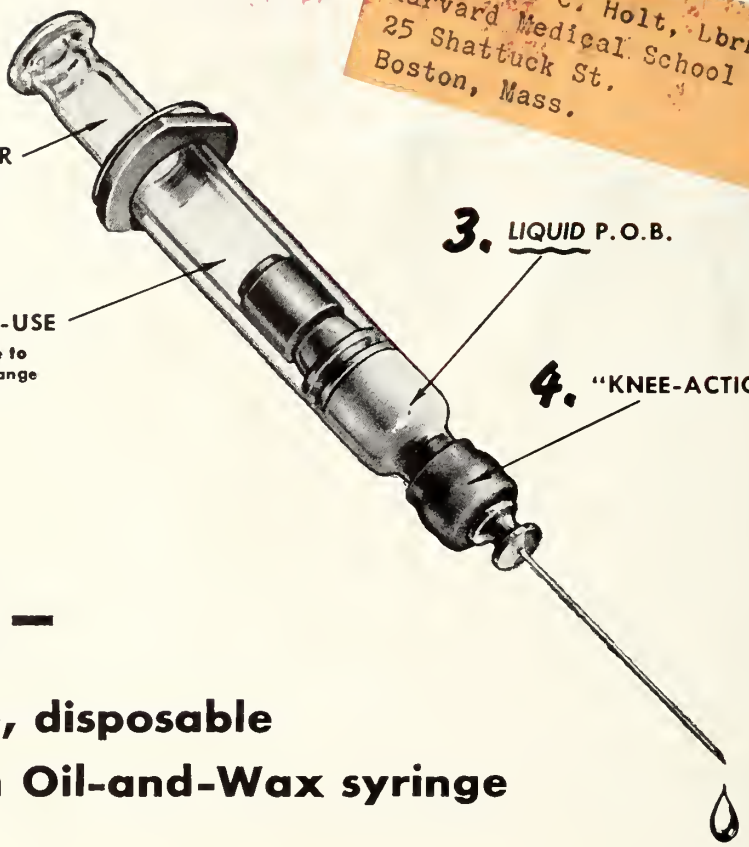
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SYMPOSIUM ON CARCINOMA OF THE STOMACH

CARCINOMA OF THE STOMACH, Thomas F. Mullen, San Francisco 107
WHAT CAN THE INTERNIST DO TO GET MORE EARLY CASES OF CARCINOMA OF THE STOMACH TO THE SURGEON? Clayton D. Mote, San Francisco 108
WHAT DOES GASTROSCOPY OFFER IN THE EARLY DIAGNOSIS OF CANCER OF THE STOMACH? Rudolph Schindler, Los Angeles 110
PROBLEMS IN THE X-RAY DIAGNOSIS OF EARLY CANCER Kenneth S. Davis, Los Angeles 117
RECENT ADVANCES IN SURGICAL TREATMENT OF CANCER OF THE UPPER END OF THE STOMACH, Gunther W. Nagel, San Francisco 118
RADICAL SURGICAL TREATMENT OF GASTRIC CANCER George T. Pack, New York 120

USE OF THE THYMOL TURBIDITY TEST AS AN AID IN DIAGNOSIS OF DYSFUNCTIONS OF THE LIVER, Donald C. Dodds, San Francisco 125
PHYSIOLOGICAL BASIS FOR THE TREATMENT OF INTRACTABLE ASTHMA Hyman Miller, Beverly Hills 128
MEDICAL PROGRESS: MANAGEMENT OF PATIENTS WITH VARIOUS TYPES OF GOITER, Mayo H. Soley, San Francisco 131

EDITORIALS 136
CLINICAL-PATHOLOGICAL CONFERENCE 139
CALIFORNIA MEDICAL ASSOCIATION 142
NEWS AND NOTES 145
INFORMATION 148
LETTERS TO THE EDITOR 151
BOOK REVIEWS 152
MEDICAL JURISPRUDENCE 154
BOARD OF MEDICAL EXAMINERS Adv. page 14
ANTISPASMODICS Adv. page 10

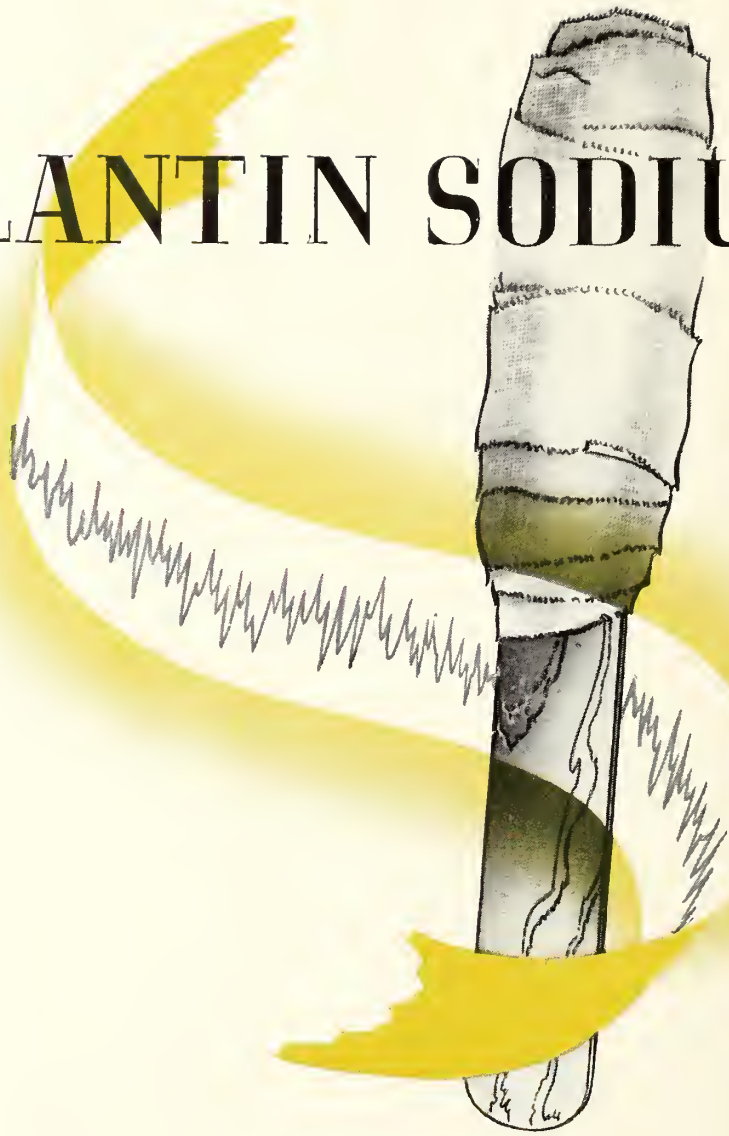
Program and Pre-Convention Reports For C.M.A. Annual Meeting Los Angeles, April 30-May 3—Page 155

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CONTRA COSTA County Medical Society
President, H. W. McNerney, 2600 MacDonald Avenue, Richmond
Secretary, George D. Husser, 322 Twenty-third Street, Richmond.
Meeting, *Second Tuesday, 8:00 p. m.*

FRESNO County Medical Society
President, E. A. Patterson, P. O. Box 1908, Fresno.
Secretary, William N. Knudsen, 701 T.W. Patterson Building, Fresno.
Meeting, *First Tuesday, University-Sequoia Club, Fresno.*

HUMBOLDT County Medical Society
President, Walter Dolfini, 539 G Street, Eureka.
Secretary, Wayne P. McKee, Ferndale.
Meeting, *First Thursday.*

IMPERIAL County Medical Society
President, Charles Cutshaw, Brawley.
Secretary, George Cole, Brawley.
Meeting, *Third Tuesday, 7:00 p. m., Barbara Worth Hotel, El Centro.*

INYO-MONO County Medical Society
President, Walter L. Wilson, 108 N. Main, Bishop.
Secretary, Lloyd S. Bambauer, Bishop.
Meeting, *Fourth Wednesday, except December, January, February.*

KERN County Medical Society
President, William H. Macdonald, 2103 18th Street, Bakersfield.
Secretary, Frederick O. Wynia, 354 Haberfelde Building, Bakersfield.
Meeting, *Third Tuesday, 7:30 p. m., Stockdale Country Club, except June, July, August.*

KINGS County Medical Society
President, Allen Stamler, Corcoran.
Secretary, William F. Chamlee, Van Sicklen Building, Hanford.
Meeting, *Second Monday, 8:00 p. m., Legion Hall, Hanford.*

LASSEN-PLUMAS-MODOC County Medical Society
President, Wilbur C. Batson, Greenville.
Secretary, John Paul McKenney, Alturas.
Meeting, *On Call.*

LOS ANGELES County Medical Association
1925 Wilshire Boulevard, Los Angeles 5
President, E. T. Remmen, 429 North Orange, Glendale 3.
Secretary, Carl L. Mulfinger, 1052 West Sixth Street, Los Angeles 14.
Meeting, *First and Third Thursday, 1925 Wilshire Boulevard, Los Angeles.*

MARIN County Medical Society
President, Lloyd G. Tyler, 1010 B Street, San Rafael.
Secretary, Carl W. Clark, 1010 B Street, San Rafael.
Meeting, *Fourth Thursday, 7:00 p. m., Travelers Inn, San Rafael.*

MENDOCINO-LAKE County Medical Society
President, J. E. Gardner, 215 W Standley Street, Ukiah.
Secretary, E. C. Bennett, Ukiah.

MERCED County Medical Society
President, E. R. Fountain, Merced.
Secretary, C. C. Fitzgibbon, Shaffer Building, Merced.
Meeting, *Third Thursday, Hotel Tioga, Merced.*

MONTEREY County Medical Society
President, A. L. Wessels, 11 Maple Street, Salinas.
Secretary, F. H. Smith, Salinas National Bank Building, Salinas.
Meeting, *First Thursday.*

NAPA County Medical Society
President, Charles H. Bulson, 1203 Seminary Street, Napa.
Secretary, M. M. Booth, Bruck Building, St. Helena.
Meeting, *First Wednesday.*

ORANGE County Medical Association
President, John Montanus, Rt. 1, Box 587A, Santa Ana.
Secretary, Llewellyn E. Wilson, 502 Bank of America Building, Anaheim.
Meeting, *First Tuesday, 7:00 p. m., Windsor Cafe, Santa Ana.*

PLACER - NEVADA - SIERRA County Medical Society
President, George A. Foster, Grass Valley.
Secretary, Vernon W. Padgett, Grass Valley.
Meeting, *At Call of President.*

RIVERSIDE County Medical Association
President, Franklyn D. Hankins, 3014 Pine Street, Riverside.
Secretary, Cecil Lord, 3616 Main Street Riverside.
Meeting, *Second Monday, 8:00 p. m., Library, Riverside Community Hospital.*

SACRAMENTO Society for Medical Improvement
President, Dudley Saeltzer, Medico-Dental Building, Sacramento.
Secretary, Edmund E. Simpson, 1127 Eleventh Street, Sacramento 14.
Meeting, *Third Tuesday, 8:30 p. m. Auditorium, Sacramento.*

SAN BENITO County Medical Society
President, J. M. O'Donnell, Hollister.
Secretary, J. J. Haruff, Hollister.
Meeting, *At Call of President.*

SAN BERNARDINO County Medical Society
President, Marcus D. White, 201 Fallas Building, Ontario.
Secretary, Thomas F. Dempsey, 1272 E Street, San Bernardino.
Meeting, *First Tuesday, 8:00 p. m., San Bernardino County Charity Hospital.*

SAN DIEGO County Medical Society
President, F. E. Jacobs, 4228 El Cajon Boulevard, San Diego 5.
Secretary, W. H. Geistweit, Jr., 810 Medical Building, 233 A Street, San Diego, 1.
Meeting, *Second Tuesday, San Diego Club.*

SAN FRANCISCO County Medical Society
2180 Washington Street 9
President, Anthony B. Diepenbrock, 2180 Washington Street, San Francisco 9.
Secretary, Robertson Ward, 2180 Washington Street, San Francisco 9.
Meeting, *Second Tuesday, 8:15 p. m., 2180 Washington Street, San Francisco 9.*

SAN JOAQUIN County Medical Society
President, Dora Ames Lee, 110 North San Joaquin Street, Stockton 6.
Secretary, H. D. Chope, Box 111, Stockton.
Meeting, *First Thursday, 8:15 p. m., Medico-Dental Club Rooms, Stockton.*

SAN LUIS OBISPO County Medical Society
President, Edward C. Sherman, 784 Marsh Street, San Luis Obispo.
Secretary, G. D. Kelker, 1114 Marsh Street, San Luis Obispo.
Meeting, *Fourth Wednesday, 6:30 p. m., Gold Dragon Cafe, San Luis Obispo.*

SAN MATEO County Medical Society
President, Stuart Lindsay, 440 Portola, San Mateo.
Secretary, Albert G. Miller, Medical Arts Building, San Mateo.
Meeting, *Third Tuesday of each month.*

SANTA BARBARA County Medical Society
President, D. H. McNamara, Cottage Hospital, Santa Barbara.
Secretary, Douglas F. McDowell, 317 W. Pueblo Street, Santa Barbara.
Meeting, *Second Monday, Cottage Hospital.*

SANTA CLARA County Medical Association
President, Joseph B. Josephson, 1541 The Alameda, San Jose 11.
Secretary, Leslie B. Magoon, 630 E. Santa Clara, San Jose 12.

SANTA CRUZ County Medical Society
President, Luther Newhall, Jr., Ocean and Broadway, Santa Cruz
Secretary, Samuel B. Randall, 84 Walnut Avenue, Santa Cruz.
Meeting, *Every second month, second Tuesday. Time and place to be announced.*

SHASTA-TRINITY County Medical Society
President, L. C. Mosher, Bieber.
Secretary, Julius M. Kehoe, Redding.
Meeting, *Second Monday.*

SISKIYOU County Medical Society
President, Richard W. Jones, 106 South Broadway, Yreka.
Secretary, F. W. Martin, Mt. Shasta.
Meeting, *Sunday on Call.*

SOLANO County Medical Society
President, H. Randall Madeley, 727 Sonoma Street, Vallejo.
Secretary, Charles H. Widenmann, 405 Georgia Street, Vallejo.
Meeting, *Second Thursday, 8:00 p. m., Casa de Vallejo; Hotel Vallejo.*

SONOMA County Medical Society
President, Wilson Stegeman, 534 B Street, Santa Rosa.
Secretary, Raimond F. Clary, 1616 Fourth Street, Santa Rosa.
Meeting, *Second Thursday.*

STANISLAUS County Medical Society
President, Andrew Van De Pol, P. O. Box 944, Modesto.
Secretary, J. Lyle Spellman, 138 McHenry Avenue, Modesto.
Meeting, *Second Friday, 7:30 p. m., Hotel Hughson.*

TEHAMA County Medical Society
President, E. R. Wilson, Red Bluff.
Secretary, R. G. Frey, Red Bluff.
Meeting, *At Call of President.*

TULARE County Medical Society
President, Frank R. Guido, Box 1094, Visalia.
Secretary, Debora Pineles, Box 349, Visalia.

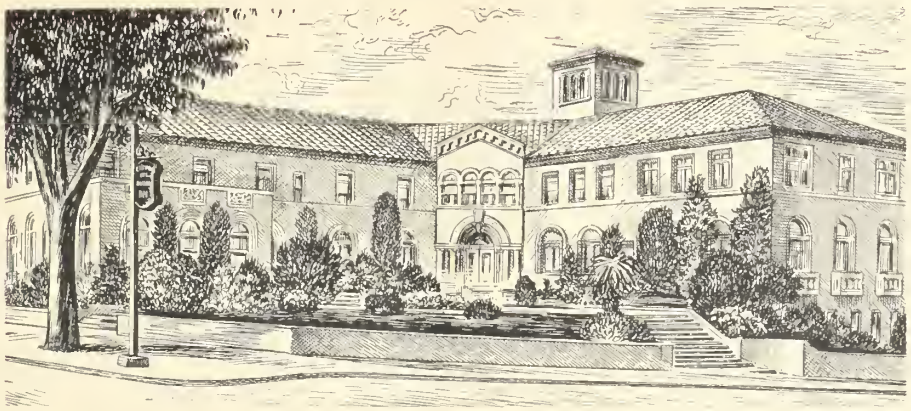
VENTURA County Medical Society
President, D. M. Clark, Foster Memorial Hospital, Ventura.
Secretary, A. A. Morrison, 34 North Ash, Ventura.

YOLO County Medical Society
President, Max Waters, Porter Building, Woodland.
Secretary, Emery Leivers, Woodland Clinic, Woodland.
Meeting, *First Wednesday.*

YUBA-SUTTER-COLUSA County Medical Society
President, Leon M. Swift, Box 244, Marysville.
Secretary, D. Ermorine Edwards, 725 Fourth Street, Marysville.
Meeting, *Second Wednesday.*

(For roster of C.M.A. committees and other organizations, see last month's issue.)

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Baxter, Inc., Don..... 47
Benjamin, M. J..... 14
Bilhuber-Knoll Corp. 3
Birtcher Corporation, The..... 23
Bolin, M.D., Zera E., Pathologist..... 40
Borcherdt Malt Extract Company..... 76
Borden Company, The..... 63
Bristol Laboratories Inc..... 45
Broemmel's Pharmaceuticals 3
Burroughs Wellcome & Co.....21 and 57
California Sanatorium, The..... 46
Calso Water Co. 22
Camp & Company, S. H..... 41
Ciba, Inc.....Insert 16 and 17
Commercial Solvents Corporation..... 50
Compton Sanitarium 17
Cook County Graduate School of Medicine.. 40
Cutter Laboratories 4th cover
Denver Chemical Mfg. Co., The..... 13
Devereux Schools 54
Doctors Business Bureau, The..... 66
French Hospital 62
Garden Grove Sanitarium..... 64
General Electric X-ray Corporation..... 37
Greens' Eye Hospital..... 7
Guth, C. Rodolph..... 7
Haack Laboratories, Inc..... 74
Hanger, Inc., J. E..... 26
Harrower Laboratory, Inc., The..... 55
Hershey Pharmaceutical Co..... 76
Holland-Rantos Company, Inc..... 75
Hygeia Sanatorium 26
Hynson, Westcott & Dunning, Inc..... 10
International Vitamin Div. Am. Home Prod. 48
Ingram Laboratories, Inc..... 42
Jenkel-Davidson Optical Co..... 28
King Ambulance Company..... 22
Kinney & Sons, Inc., H. W..... 35
Kip Corp., Ltd..... 76
La Loma Feliz..... 22
Las Encinas Sanitarium..... 40
Lilly and Company, Eli.....Insert 48
Livermore Sanitarium 16
Los Angeles Tumor Institute..... 52
Luziers, Inc. 12
M & R Dietetic Laboratories, Inc..... 71
McCall's Desert-Air Lamps..... 18
Mead Johnson & Company.....3rd cover
Medical Protective Company, The..... 25
Menninger Foundation, The..... 62
Merck & Co., Inc..... 68
Nestlé's Milk Products, Inc..... 51
New York Polyclinic Medical School, The... 16
Noble Placement Agency..... 38
Ortho Pharmaceutical Corp..... 78
Park Sanitarium 58
Parke, Davis & Company..2nd cover; 1 and 60
Pasadena Research Laboratories, Inc..... 32
Philip Morris & Co., Ltd., Inc..... 9
Physicians Casualty Association..... 76
Physicians Formula Cosmetics, Inc..... 58
Pitman-Moore Company 43
Pottenger Sanatorium and Clinic, The..... 72
Procredit Company 72
Raleigh Hills Sanitarium, Inc..... 36
Rexall Drug Company..... 31
Reynolds Tobacco Co., R. J..... 69
Riggs Optical Co..... 46
Saint Francis Hospital..... 54
St. Luke's Hospital..... 17
San Francisco Surgical Co..... 17
Schenley Laboratories, Inc..... 70
Schering Corporation 33
Schmid, Inc., Julius..... 73
Searle & Co., G. D..... 49
Servex, Inc. 66
Shadel Sanitarium 77
Sharp & Dohme..... 61
Smith-Dorsey Company, The..... 20
Smith, Kline & French Laboratories..... 29
Squibb & Sons, E. R..... 15
Stacey, Inc., J. W..... 14
Stayner Corporation 44
Stuart Oxygen Company..... 24
Upjohn Company, The..... 65
Urell, Inc. 52
Walker Vitamin Products, Inc..... 27
Warren-Teed Products Co., The..... 5
Winthrop Chemical Co..... 53
Wyeth Incorporated 19
Young & Co., F. E..... 56

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OPPORTUNITIES AVAILABLE

WANTED—(a) Traumatic surgeon to become associated with private practice group operating own hospital and having busy industrial medical department; minimum three years' training required, Pacific Coast. (b) Associate by ophthalmologist, Diplomate of the American Board and head of department; excellent research facilities; health resort city of the West; will consider someone with two years' training who wishes to work with Board member. (c) Young physician with minimum two years of pediatric training to assist Diplomate of American Board of Pediatrics; well established in town of 85,000, California. (d) Physician well qualified and experienced in physical medicine to organize and direct department in one of the leading hospitals of California; possibility of part-time arrangement. (e) Resident in psychiatry; fairly large hospital having residency approved for one year; $300, maintenance; if trained in psychiatry, $400, maintenance; accommodations for married man with not more than two children, Pacific Coast. (f) Radiologist, Diplomate of American Board, to direct department relatively new hospital of medium bed capacity; all services represented; preferably someone now holding California license; $12,000. (g) Otolaryngologist to head department of 6-man group well established in large city of Pacific Northwest; ophthalmologist will join staff after otolaryngologist becomes established; Diplomate required; $8500. (h) Young physician interested in proctology to become associated with specialist well established in California. (i) Internist and obstetrician-gynecologist to join group well established in southern California; young men licensed in California required; salary basis, opportunity for partnership later. (j) Assistant, institution specializing in tuberculosis work; active collapse program; opportunity for learning all types of procedures including bronchoscopy; young physician interested in specializing in tuberculosis work required; $300-$350 including maintenance. (k) Young physician, licensed in California, to join group in private and industrial office and hospital practice; salary or participating basis; small town located on coast of California. (l) Pathologist to direct laboratories fairly large hospital; southern California. (m) Resident physician, mixed service, fairly large hospital California license required; $290 including maintenance; married man eligible.

OPPORTUNITIES WANTED

INTERNIST, Diplomate, particularly well qualified in cardiology, is available for position in California; four years' military service; now completing graduate training in cardiology; licensed in California; native of Los Angeles; for further information, please write Burneice Larson, Director, Medical Bureau, Palmolive Building, Chicago 11.

YOUNG physician, graduate of University of California, is available for assistantship in surgery, medicine or general practice; year's internship and year's general residency, one of Californina's leading hospitals; expects discharge in May; California license; for further information, please write Burneice Larson, Director, Medical Bureau, Palmolive Building, Chicago 11.

SURGEON, Diplomate of American Board; two years, assistant to well known urologist; four years' graduate training in surgery; licensed in California; for further information, please write Burneice Larson, Director, Medical Bureau, Palmolive Building, Chicago 11.

YOUNG physician wishes assistantship in obstetrics-gynecology; licensed in California; thirty-four months' training in obstetrics-gynecology; for further information, please write Burneice Larson, director, Medical Bureau, Palmolive Building, Chicago 11.

RESEARCH chemist and industrial hygienist is available; B.S. (majors: Biology and Chemistry; minors: Mathematics and Physics); more than ten years' experience as chemist and bacteriologist; captain, Sanitary Corps Reserve; now in charge of research on industrial waste treatment of waste for large corporation; for further information, please write Burneice Larson, Director, Medical Bureau, Palmolive Building, Chicago 11.

90 BED HOSPITAL, with 20 acute and 60 chronic beds, wishes a general resident, must be licensed in California. $400.00 a month with living quarters and maintenance for self and family. Write Reuben Merliss, M.D., 415 North Camden Drive, Beverly Hills, California.

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(Continued on Page 10)

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**Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154*
Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60
Proc. Soc. Exp. Biol. and Med., 1934, 32, 241
N. Y. State Journ. Med., Vol. 35, 6-1-35, No. 11, 590-592.

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ANTISPASMODICS

CANINES CRITICIZE LAFAYETTE SUN

A few of Lafayette's strilling canines who stop each day to get the news, so to speak, at the newspaper display racks in front of a certain pharmacy here in town have been criticizing the Lafayette Sun.

These creatures stop and appear to gaze intently at the Sun, which is on the lowest bracket of the rack, pressing their snouts almost against the reading matter. Then they turn aside and criticize the publication.

The publishers of the paper, though deeply hurt, take a measure of left-handed consolation from the fact that some of the taller dogs even criticize a San Francisco paper which is displayed on the next higher bracket. None of the critics, however, has become so toplofty as to dare censure the Oakland Tribune, which is at the top of the rack and apparently above reproach.

All criticism has come from male dogs. The lady canines—call them what you will—still remain ladies, bless 'em, so far as the Lafayette Sun is concerned.—*Seen by R.E.L. in the Lafayette, Calif. SUN.*

Tests showed that the man could not have been the father of the child in question. They showed something else: that the woman couldn't either!—*From an article by J. D. Ratcliff in McCall's.*

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. . . the spinal affliction that made of Sylvia a tart and sexless spinster.—*From Hetty Green, by Boyden Sparkes and Samuel Taylor Moore.*

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(Continued from Page 8)

YOUNG SURGEON, well qualified in general and industrial surgery, wishes association with group clinic or industrial practice. Diplomate of American Board; 3 years fellowship Mayo Foundation; 3 years military experience; 1 year surgical staff Mayo Clinic; California license. For further information, write Hedwig Falkell, Director, Pacific Coast Medical Bureau, Agency, 1406 Central Tower Building, San Francisco.

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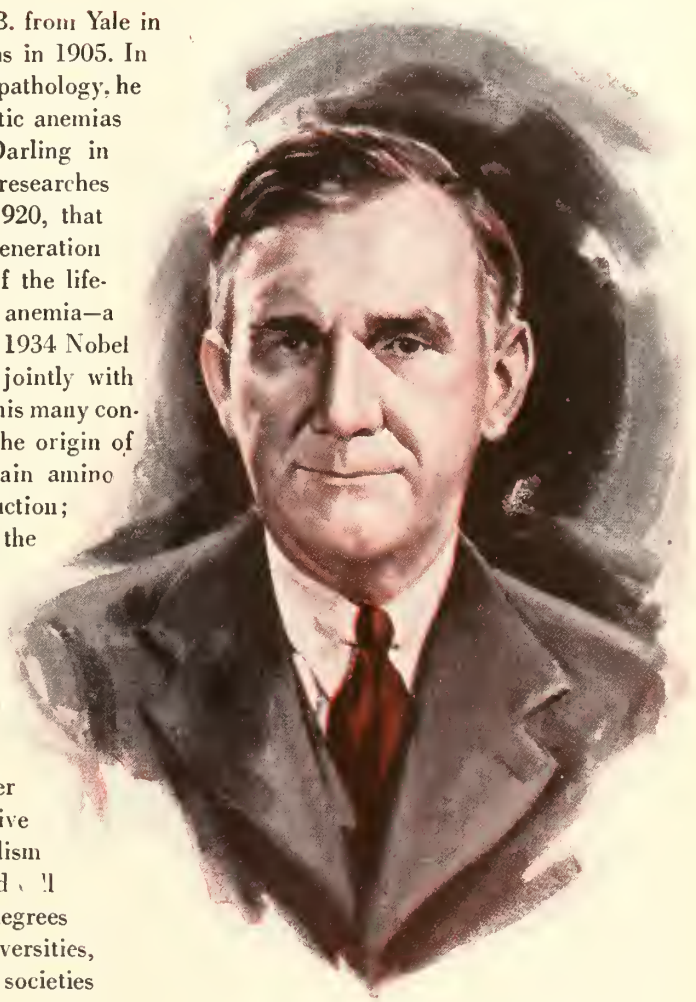
WANTED—(a) Two Anesthesiologists, Diplomates of American Board for hospital associations, Northern California. Financial arrangements open. (b) EENT, to work in clinic group; required to do eye surgery; prefer under 40 years; Washington. (c) Pediatrician, age 20 to 30 to work with Diplomate of American Board. Two years residencies in pediatrics required. San Francisco. For further information, write Hedwig Falkell, Director, Pacific Coast Medical Bureau, Agency, 1406 Central Tower, San Francisco.

PHYSICIAN NEEDED: Northfork, 48 miles from Fresno, 44 miles from Madera, with a population of approximately 5,000 in and around town. Ranchers, forresters and mill workers. Office space and 5-room apartment available. Cash guarantee for first six months. Contact Kenneth J. Staniford, M.D., The Pines, Bass Lake, California, for further information.

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George H. Whipple received his A.B. from Yale in 1900, and M.D. from Johns Hopkins in 1905. In pursuing his bent for investigational pathology, he studied blackwater fever and parasitic anemias under General Gorgas and Dr. Darling in Panama. In 1917, he began extended researches on anemias. The observation, in 1920, that liver was beneficial in blood regeneration paved the way for the revelation of the life-saving value of liver in pernicious anemia—a discovery for which he received the 1934 Nobel Prize in Physiology and Medicine jointly with Doctors Minot and Murphy. Among his many contributions were those dealing with the origin of plasma proteins; the value of certain amino acids in increasing hemoglobin production; the potency of dietary factors in the formation of hemoglobin and plasma proteins; studies on reserve stores of protein-building materials; and the dynamic exchange of protein materials within the body.



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By Frederick N Scatena, M.D.
Secretary-Treasurer

Board Proceedings

On February 15 the first oral and clinical examination as provided for in the Board Rule, relating to graduates of foreign medical schools, was held at the Los Angeles General Hospital under the direction of the Southern Members of the Board. Dr. Joe Zeiler, Vice-President being in charge.

The State District Court of Appeal reversed a decision of Superior Judge Sylvain Lazarus under which the State Board of Medical Examiners was ordered to grant licenses to two applicants who graduated from the Chicago Medical School and to permit a third to take a written examination.

Plaintiffs in the action were Drs. Nathan Mann, Oscar J. Burroughs, and Zelwyn A. Aarons.

Several Bills have been introduced at this session of the Legislature amending existing sections or adding new sections to the Business and Professions Code relating to the practice of medicine. Some of the Bills endeavor to clarify sections of the Code and others to simplify some of the administrative duties of the Board.

A recent compilation of statistics indicates several interesting facts. In 1939 the number of renewals issued totaled 12,072, with 9,991 giving California addresses. It is anticipated that the number renewing as of March 1, 1947, will be in excess of 16,500 with approximately 13,500 giving California addresses.

A comparison of these figures with the population of the State (6,907,387 in 1940 and an estimated 9,000,000 in 1946) indicates that the present number of physicians would, if the ratio of one doctor to 1,000 population is used, be sufficient to take care of a population in excess of 13,000,000 in the event the population and the practicing physicians were evenly distributed over the State.

NEWS

"Chiropractor Held In Fraud—Santa Rosa Man Accused by U. S. of Mulcting Thousands.—An asserted racket which mulcted thousands of arthritis sufferers of thousands of dollars was exposed yesterday in an eleven count federal mail fraud indictment against John A. Zanetti, 49, Santa Rosa chiropractor . . . Zanetti is operator of the National Clinical Institute, 224 Rosenberg Building, Santa Rosa.

"Advertising a sure cure for arthritis, the chiropractor solicited sufferers from the disease to send $1 for information as to how they could be cured, the indictment charged . . . Once the first application for information had been made, Zanetti mailed the prospect literature in which he claimed to have discovered a 'miraculous new cure' for arthritis, James T. Davis, assistant United States attorney said. The cure could be obtained for $250 . . . If the money was not forthcoming within a few days, Davis asserted, follow up letters with special reductions were sent until a final offer of the secret cure for $5 had been made.

"When the second payment had been received, Davis declared, Zanetti mailed an elaborately printed set of instructions in which he described arthritis as a 'nervous disorder' and set up a course of action which he said

(Continued on Page 16)



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(Continued from Page 14)

would result in a cure . . . Among the instructions, according to Davis, were admonitions to 'concentrate on your work . . . relax . . . avoid extremes . . . take up your worries and problems in a problem hour each day . . . avoid rushing . . . eat overcooked vegetable salad at every meal.'

"Thousands of responses to the advertising apparently were had, Davis said, with the result that the local postoffice inspector's office was swamped with complaints of those who had been mulcted . . . Complaints, Davis said, continued after the postoffice department placed a mail fraud order on the intsitute's mail last April 17." (San Francisco, California, *Examiner*, January 30, 1947.)

NEW LABORATORY ESTABLISHED FOR ROUTINE RH BLOOD TESTS

A new laboratory, the first of its kind, has been established in Baltimore to act as a clearing house for the widespread testing of the Rh factor in the blood, according to three investigators, writing in the December 21 issue of *The Journal of the American Medical Association.*

The authors of the report are Milton S. Sacks, M.D., Director of the Baltimore Rh Typing Laboratory; Elsa F. Jahn and William J. Kuhns, M.S., from the Department of Clinical Pathology, the University of Maryland School of Medicine.

The idea for the laboratory is credited to a number of obstetricians in Baltimore who deemed it essential to

(Continued on Page 17)

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NEW LABORATORY ESTABLISHED FOR ROUTINE RH BLOOD TESTS

(Continued from Page 16)

establish facilities for routine Rh studies at a minimal cost for any clinic or private patient in the city.

The laboratory, which began to function on August 1, 1945, is under the jurisdiction of a committee of six members of the Obstetrical and Gynecological Section of the Baltimore City Medical Society. It is a privately sponsored, cooperative community venture. The services of the laboratory are offered free of charge to the dispensary patients of any hospital within the city and to patients of the City Health Department Obstetrical Clinics. Private patients pay $3 or $5, depending on the extent of services desired. "The initial charge is the only one," state the authors. "All subsequent studies throughout pregnancy are made without further cost to the patient. Similar arrangements have been made available to physicians in the counties of Maryland."

The authors state that "during the first eight months of its existence, the laboratory performed tests on approximately 7,000 pregnant women. There were approximately 12,000 births in Baltimore during a similar period.

Women patients who come to this laboratory are tested for sensitization to the Rh factor. That is, a test is made to determine whether there are antibodies in the blood against Rh positive blood cells. If there are, the patient might become ill from jaundice, Bright's disease or anemia after transfusion of Rh positive blood. If the patient has not been sensitized, sensitization can be prevented.

"Of a group of 904 Rh-negative pregnant women, 46, or 5.08 per cent, displayed evidences of sensitization," according to the authors.

Among the byproducts of the operation of the laboratory

(Continued on Page 22)

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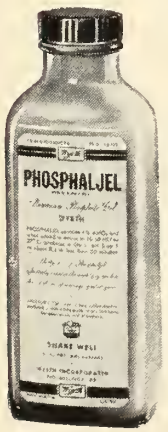
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Schwartz, Charlton R., *Eureka*

Los Angeles County (91)

Alban, Harry, *Long Beach*
Ariaudo, John A., *Los Angeles*
Baro, Walter Z., *Los Angeles*
Barry, John W., *Los Angeles*
Bellis, Carroll Joseph, *Long Beach*
Birnbaum, Seymour, *San Pedro*
Birnberg, Victor J., *Los Angeles*
Brownstein, Samuel R., *Beverly Hills*
Buckland, Wilmer B., *North Hollywood*
Carver, Cyril E., *Pasadena*
Chappel, Merwin Reid, *Lynwood*
Collins, Robert Asbury, *Glendale*
Daniels, Samuel D., *Los Angeles*
Davis, Alvin E., *Los Angeles*
DeMangus, Robert X., *Glendale*
Dickson, J. Douglas, *Santa Monica*
Dilger, Francis Joseph, *Alhambra*
Downs, Malcolm Burdette, *Los Angeles*
Drury, Robert G., *Montebello*
Erler, Theodore G., Jr., *South Pasadena*
Evans, Charles B. S., *Santa Monica*
Godwin, Edmund D., *Long Beach*
Gore, Arthur Francis, *Beverly Hills*
Hackett, Gordon C., *El Segundo*
Hellman, Jack M., *Los Angeles*
Helms, Gage, *Long Beach*
Helms, Robert W., *Long Beach*
Hinckley, Harold A., *Long Beach*
Holland, Frank Lynn, *North Hollywood*
Hyde, LeRoy, *Van Nuys*
Jones, T. Clifton, *Wilmington*
Kaufman, Harry, *San Pedro*
Kelpien, William Hannan, *Montebello*
Kennedy, Putnam C., *Glendale*
Kondo, Benjamin, *Los Angeles*
Lane, Milton, *Los Angeles*
Laskey, Irving I., *Los Angeles*
Lee, John Herman, *Wilmington*
Leonard, G. John, *Los Angeles*
Leveton, Albert L., *Los Angeles*
Litow, Sidney S., *Beverly Hills*
Lungren, John C., *Long Beach*
MacColl, Douglas R., *Los Angeles*
MacDonald, R. Gordon, *Santa Monica*
McCormick, Bernard J., *Los Angeles*
Mack, Marvin A., *Santa Monica*
Marcus, Philip M., *Beverly Hills*
Marino, Charles J., *Long Beach*
Matson, John W., *Los Angeles*
Melnick, Perry J., *Van Nuys*
Meschuk, John Donald, *El Segundo*
Miller, Donald Glen, *Glendale*
Moss, Arthur James, *Inglewood*
Murphy, Edward Lee, *North Hollywood*
Norins, Howard, *San Fernando*
Panzer, Edward J. C., *Bell Gardens*
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(Continued from Page 17)

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CHANGES IN MEMBERSHIP

(Continued from Page 20)

Pollack, John V., *Los Angeles*
Pyle, Calvin A., *Glendale*
Rangell, Leo., *Beverly Hills*
Ratner, Reuben, *Beverly Hills*
Rickard, Robert N., *Beverly Hills*
Roberts, Wyman John. *Long Beach*
Rogell, Harold. *Pasadena*
Root, Donald H., *Long Beach*
Rosanoff, William R., *Rosemead*
Rosenberger, Homer, Jr., *Whittier*

(Continued on Page 26)

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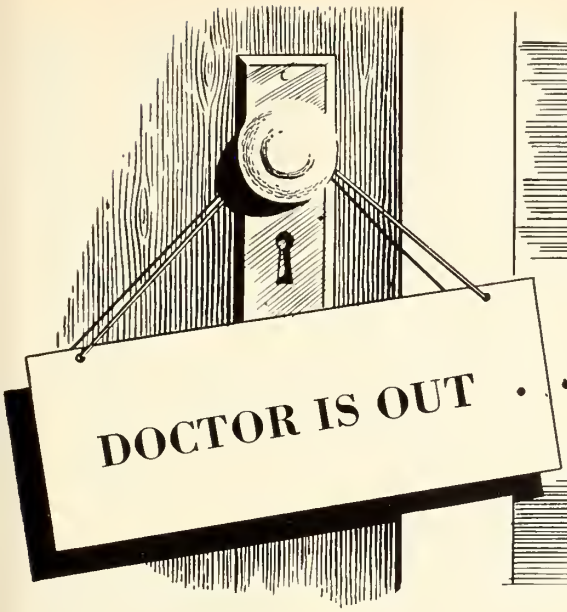
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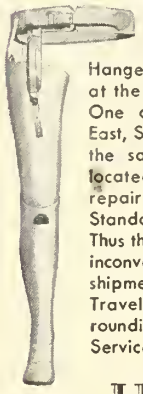
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Rue, George Harvey, *Los Angeles*
Russell, Murray, *Beverly Hills*
Russell, Richard S., *Glendale*
Savitz, Saul P., *Lomita*
Schaaf, Frederick C., *Van Nuys*
Schwartz, J. Joseph, *Beverly Hills*
Sher, Julius Yale, *Los Angeles*
Sherwood, Harold R., *Los Angeles*
Shery, Kurt T., *Los Angeles*
Shulman, Harold, *Los Angeles*
Sitney, Julian Jay, *Los Angeles*
Skoller, Julius, *Venice*
Skorin, John J., *San Pedro*
Spatz, Jerome M., *Huntington Park*
Spaulding, C. Arthur, Jr., *Glendale*
Stilson, Homer O., *Los Angeles*
Taylor, Fred R., *Long Beach*
Tepper, Leo, *Olive View*
Watson Price Thorne, *Temple City*
Williams, Joseph H., *Alhambra*
Zugsmith, George S., *San Pedro*

Orange County (2)

Chung, John K. C., *Costa Mesa*
Heid, John B., *Santa Ana*

San Bernardino County (3)

Hamilton, George S., *San Bernardino*
Hoag, Leslie G., *Upland*
Sanborn, Clifton E., Jr., *Ontario*

San Diego County (12)

Cozby, H. O., *San Diego*
Hall, Horace A., *National City*
Hara, Shigeru, *San Diego*
Lawrence, Bertram G., *San Diego*
Loveall, G. R., *San Diego*
Neher, Ernest N., *La Jolla*
Nickel, Walter R., *Encinitas*
Plumb, Robert I., *San Diego*
Sutton, M. B., *San Diego*
Uncapher, Rex P., *La Jolla*
Winkler, David P., *Escondido*
Woodward, Benjamin, *San Diego*

San Francisco County (15)

Esberg, Hans, *San Francisco*
Felsovanyi, Anthony S., *San Francisco*
Freeman, Norman E., *San Francisco*
Freuder, Edgar, *San Francisco*
Hagey, Helen, *San Francisco*
Horstmann, Dorothy M., *New Haven, Conn.*
Levitin, Lawrence A., *San Francisco*
Pierce, Richard K., *San Francisco*
Reich, August, *San Francisco*
Rushakoff, Oscar, *San Francisco*
Solomon, Frank A., Jr., *Boston, Mass.*
Terwilliger, Calvin, *San Francisco*
Togasaki, Kazue, *San Francisco*
Vizzard, Joseph N., *San Francisco*
White, Earl L., *San Francisco*

San Luis Obispo County (1)

Gaebe, Laurence C., *San Luis Obispo*

San Mateo County (2)

Bell, Leo S., *San Mateo*
Pepper, Herman, *Redwood City*

(Continued on Page 30)

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Depressed patients ". . . suffering from psychomotor inhibition complain of feeling tired, of not being able to get started on their daily tasks, and of an abnormal inclination to procrastinate. They make up their minds that they are going to do a certain thing but they never seem to get to it. Everything seems too big for them . . ."*

In the above quotation, Kamman emphasizes "chronic fatigue" as a dominant symptom in the type of depression most frequently encountered in daily practice.

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*Kamman, G. R.: Fatigue as a Symptom in Depressed Patients, Journal-Lancet 65:238 (July) 1945.

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CHANGES IN MEMBERSHIP

(Continued from Page 26)

Santa Clara County (9)

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Eckert, J. F., *Palo Alto*
Geiger, J. M., *San Jose*
Lawrence, E. C., *San Jose*
Lourdeaux, S. J., *Menlo Park*
Morse, C. O., *Polo Alto*
Spencer, G. A., *Morgan Hill*
Wendt, Donglas, *San Jose*
Zappelli, Adolph J., *San Jose*

Santa Cruz County (1)

Sharp, Jack M., *Santa Cruz*

TRANSFERS (16)

Anderson, Herbert W., from *Fresno County* to *Santa Clara County*
Brauner, Erwin P., from *Los Angeles County* to *Orange County*
Culiner, Norman W., from *Yuba-Sutter-Colusa County* to *San Francisco County*
Gendel, Samuel, from *Los Angeles County* to *Orange County*
Gilman, Philip K., from *San Francisco* to *Marin County*
Gregory, Dewey Quintin, from *Los Angeles County* to *Humboldt County*
Hack, Rudolf W., from *San Francisco County* to *San Bernardino County*
Houck, G. H., from *Los Angeles County* to *Santa Clara County*

(Continued on Page 32)

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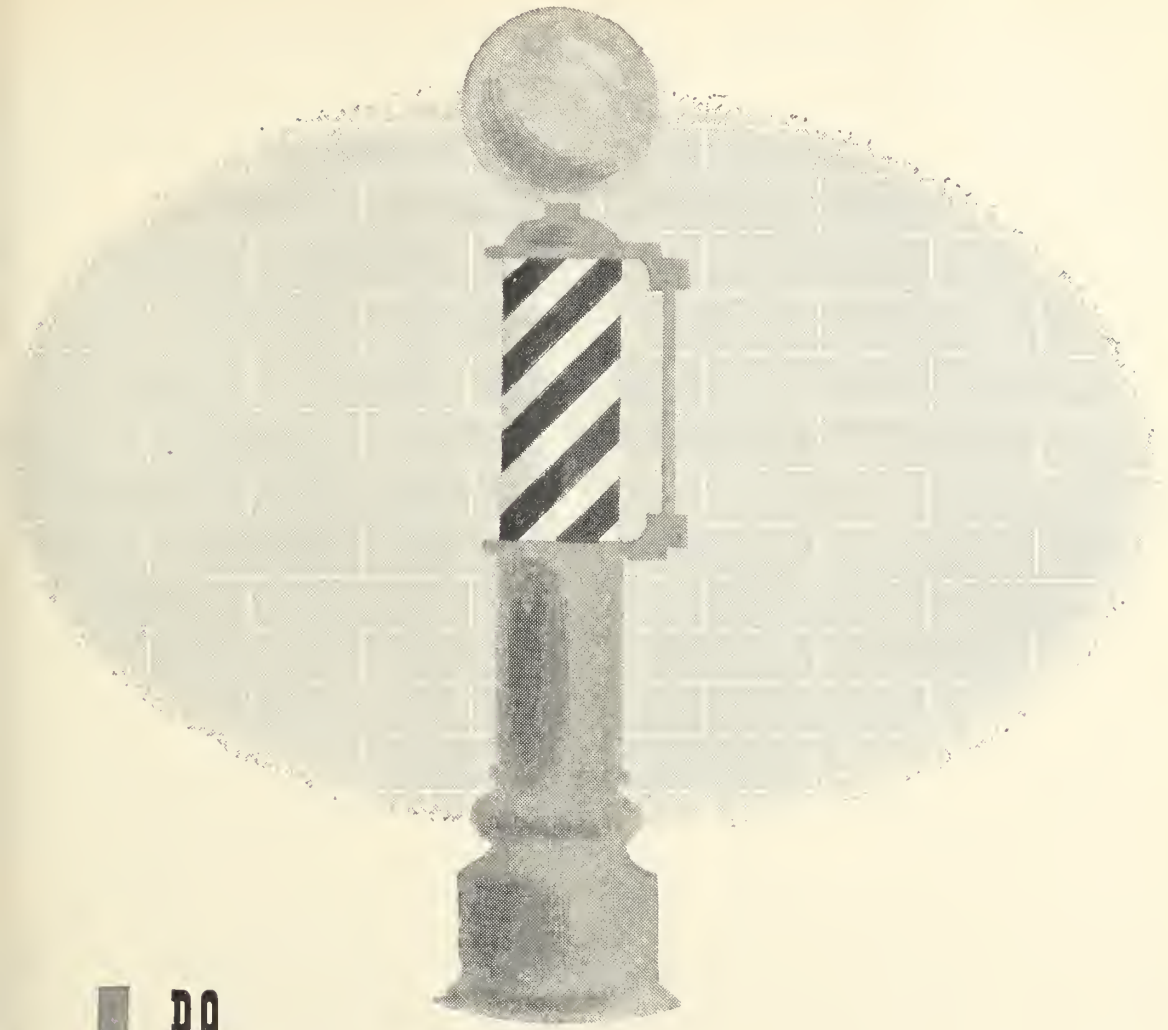
This is the keynote of an article in an English trade journal by a prominent British scientist, discussing the food and health value of beer. A digest of the article is contained in Bulletin 147-13, issued by the United States Brewers Foundation, 21 E. 40th Street, New York, N. Y.—a copy will be sent upon request.

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(Continued from Page 30)

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Ireton, William S., from *Tulare County* to *Orange County*

King, Jack W., from *Los Angeles County* to *Orange County*

MacLaggan, James, from *San Francisco County* to *San Diego County*

Shanley, Francis D., from *Alameda County* to *San Francisco County*

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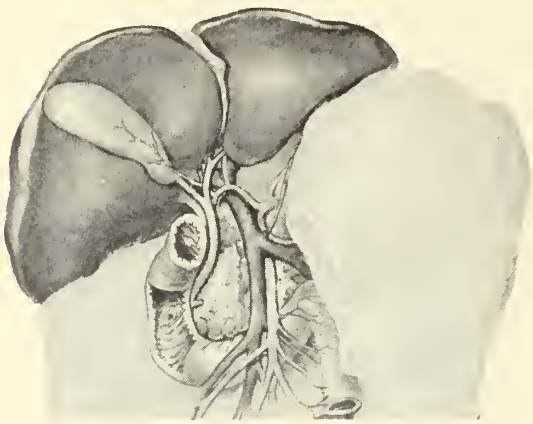
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SUSPECT EMOTIONAL TENSIONS RESPONSIBLE FOR OVERWEIGHT

Overweight is aggravated by emotional tensions, such as worry, fear or insecurity, which lead to an increased intake of food, according to S. Charles Freed, M.D., of San Francisco, who questions the belief that obesity results from glandular disturbance.

Writing in the February 8 issue of *The Journal of the American Medical Association*, Dr. Freed deplores the fact that "overweight is discussed only occasionally, and education of the public in this regard is sadly neglected, although the prevention of treatment of obesity has a far greater benefit in increasing the lifespan and combating degenerative changes than that of practically any other disease or dysfunction."

He states that "while there might be doubt as to the shortening of life by such factors as smoking, tobacco, alcohol and exercise, there is unanimous agreement of all authorities that overweight has a decided effect on decreasing the span of life. Statistics overwhelmingly show that overweight not only results in an increased death rate but also is responsible for the earlier development of cardiovascular-renal diseases, diabetes and even cancer."

The author holds the following psychologic factors responsible for intensifying the appetite for food:

"1. Environment—The child who is brought up in a family where it is common to have large, rich meals will imitate the habits of those around him by eating an excessive amount of food. Such cases are found in families in which all members are overweight.

"2. Economics—In impoverished homes food is a prominent feature in the daily life of a person because of the relative insecurity of the supply of food from day to day. The importance of sustenance creates an aggressiveness toward food, which results in eating all that is available (usually the inexpensive, high caloric types of food).

"3. Monotony—Where there is a lack of interests or distractions escape is sought in eating. This occurs in housewives who break the daily routine by frequent feeding.

"4. Occupation—Those employed in restaurants, candy shops, delicatessen stores and the like are constantly influenced to eat by the presence of food.

"5. Organic Diseases—Patients who are bedridden or whose activities are restricted by a disability, such as a fracture or convalescence from a surgical operation, will probably eat according to the habits established when they were active and will thus put on weight because of the temporary decrease in their expenditure of energy.

"6. Nervousness—In a broad sense, that which makes a patient worried or anxious, such as a social upset, domestic difficulty or illness in the family, will result in overeating through the increase in his psychic hunger.

"7. Glandular Imbalance—The two most common endocrine dysfunctions found to be responsible for overeating are the climacteric, which results in an increased nervous tension and thus leads to overeating, and premenstrual tension, which also increases tension but which occurs only about one week before menstruation. Puberty and pregnancy are conditions which commonly precipitate overeating through the development of anxieties, fears and new drives. The administration of thyroid for the reduction of overweight is in the great majority of cases without an adequate scientific basis.

"8. Subconscious Factors—Among subconscious factors there is a variety of patterns which may result in overweight. Frustrations, overcompensations and lack of emo-

(Continued on Page 38)



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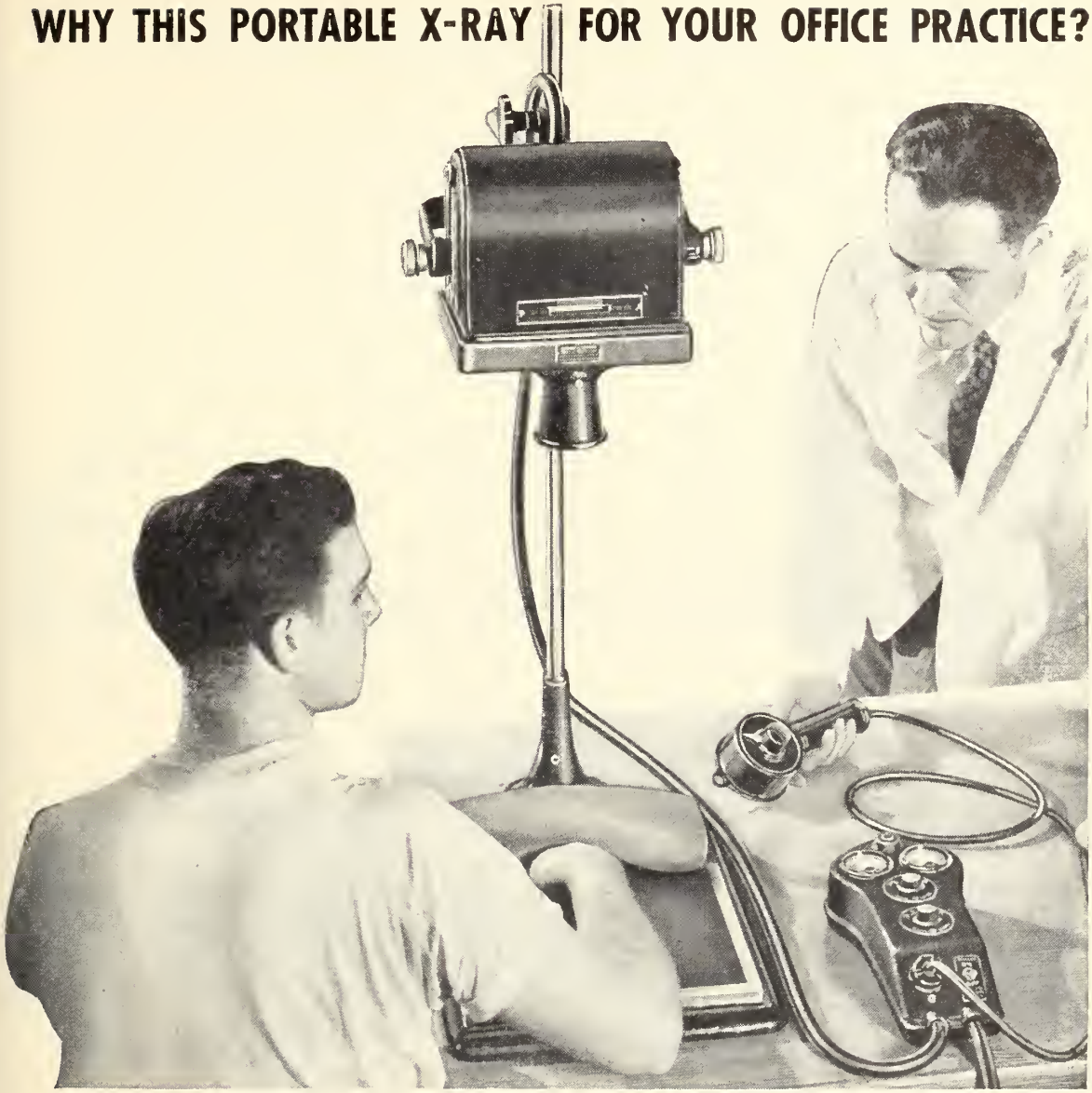
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GENERAL ELECTRIC X-RAY CORPORATION

SUSPECT EMOTIONAL TENSIONS RESPONSIBLE FOR OVERWEIGHT

(Continued from Page 34)

tional satisfaction are commonly associated with overeating."

The author suggests that the "treatment of the patient should be based on an understanding of the psychologic reasons for this overeating. The drug of choice is amphetamine sulfate (Benbedrine sulfate), which is of inestimable value. The possibility of harm from the use of this drug is relatively insignificant. Thyroid therapy in most cases is of little value. The ideal treatment of obesity involves education of the parents to the use of proper eating habits for their children and other psychologic training which induces a satisfactory adjustment to life through emotional maturity."

EXPLODE MYTH THAT NEGRO IS IMMUNE TO STONES IN URINARY TRACT

Exploding the myth that the American Negro is immune to stones in the urinary tract, two Richmond, Va., physicians state that "whatever natural immunity the Negro may have is certainly modified by his mode of living and the frequent occurrence of infection in the urinary tract."

Writing in the December 28 issue of *The Journal of the American Medical Association*, Austin I. Dodson, M.D., and John R. Clark, M.D., from the urological service of the Hospital Division of the Medical College of Virginia, say:

"The frequency with which we encounter calculi of the

(Continued on Page 40)

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Trauma and Nitrogen Equilibrium

Recent recognition of the direct relationship between trauma and protein loss has greatly improved the prognosis in postsurgical and post-trauma patients.

Striking and hitherto unsuspected protein loss has been observed in patients with fractures. Excessive urinary nitrogen excretion reaches its maximal point about a week after the injury is sustained, and thereafter slowly diminishes in extent, so that nitrogen balance is restored in approximately four weeks.[1]

In patients sustaining severe burns, the daily protein loss may be equivalent to 400 cc. of plasma.[2]

In a study embracing 23 burned patients, nitrogen balance determinations revealed excessive urinary nitrogen excretion. Nearly all patients were in negative nitrogen balance which was most marked during the first ten days.[3]

It thus appears that protein destruction and loss are prominent and potentially detrimental sequelae of trauma, and that every effort must be made to restore nitrogen equilibrium as quickly as possible to prevent the many deleterious consequences of protein depletion. The recommendation has been voiced that "whenever possible, protein losses or deficiencies should be corrected by oral feeding."[4]

Among the protein foods of man, meat ranks high not only because of the generous supply of protein it provides, but also because its protein supplies all the essential amino acids, making it applicable for every protein need—growth, tissue maintenance, and tissue repair.

1 Howard, J. E.: Bull. Johns Hopkins Hosp., *74*:313 (May) 1944.

2 Co Tui, C.; Wright, A. M.; Mulholland, J. H.; Barcham, T., and Breed, E. S.. Ann. Surg. *119*:815-823 (June) 1944.

3 Hirshfeld, J. W.; Abbott, W. E.; Pilling, M. A.; Heller, C. G.; Meyer, F.; Williams, H. H.; Richards, A. J., and Obi, R.: Arch. Surg. *50*:194 (Apr.) 1945.

4 Lund, Chas. C., and Levenson, S. M.: J. A. M. A. *128*:95 (May 12) 1945.

The Seal of Acceptance denotes that the nutritional statements made in this advertisement are acceptable to the Council on Foods and Nutrition of the American Medical Association.

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EXPLODE MYTH THAT NEGRO IS IMMUNE TO STONES IN URINARY TRACT

(Continued from Page 38)

urinary tract on the wards of the Hospital Division of the Medical College of Virginia convinces us that although urolithiasis may occur less frequently in the Negro than in the white race, it is by no means uncommon. Furthermore, we have observed that stones in the Negro are more frequently accompanied with infection and are far more destructive to renal tissue than those in white patients. The fact that Negroes are more reluctant to seek medical aid and depend more on home remedies than do white people certainly contributes to some extent to higher morbidity and mortality as a result of stone. The same thing doubtless contributes to the fact that calculi are less frequently found among them."

During the ten-year period from 1935 until 1946 there were 2,724 white patients and 1,800 Negro patients admitted to the urological service of the hospital, according to Drs. Dodson and Clark. Of these, 637 white patients and 121 Negro patients had stones in the urinary tract.

The doctors point out that the treatment of Negroes varies considerably from that usually considered advisable for white patients. The percentage of kidney removals is extremely high. Of 62 Negro patients with stone in the kidney 20 had the kidney removed, while only 26 of 190 white patients were treated with such radical measures. The authors explain this by stating that "because of the difficulty in getting these patients to return for adequate follow-up treatment, more radical surgery usually is required than is necessary in the white patient."



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FIND 1,500,000 DEVELOP PEPTIC ULCERS IN ANY 10 YEAR PERIOD

Andrew C. Ivy, noted physiologist and executive vice president of the professional schools of the University of Illinois in Chicago, estimates that 1,500,000 persons in the United States develop peptic ulcers during any ten-year period.

Writing in the December 28 issue of *The Journal of the American Medical Association*, Dr. Ivy claims that from five to 12 per cent of the population become afflicted with ulcers, one of mankind's greatest scourges, during a modern lifetime. "Not all may consult a physician," he says, "because of the mild character of their symptoms."

"The problem of peptic ulcer challenges medical science today," Dr. Ivy writes, "because among the chronic diseases it ranks tenth as a cause of death and twelfth as a cause of days lost from work."

Dr. Ivy's study, entitled "The Problem of Peptic Ulcer," reveals these facts:

—The death rate per 100,000 in the United States from peptic ulcer has increased from 2.7 in 1900 to 6.8 in 1943.

—The death rate in men for both gastric and duodenal ulcer has increased since 1920, whereas that for women has decreased.

—More people die from gastric than from duodenal ulcers.

—Ninety per cent of the cases of peptic ulcer are first diagnosed after the age of 20.

—The most discouraging characteristic of peptic ulcer is its likelihood to recur.

—The adherence to a strict therapeutic regimen solely is not certain to help unless the patient is able to live a "calm life."

—The results of years of peptic ulcer study have provided "the blocks of a jigsaw puzzle which at present cannot be fitted together to provide an adequate picture of the cause or causes of the disease."

—Data support the commonly expressed statement that "chronic" duodenal or gastric ulcer in man usually heals rapidly under conditions of strict medical management.

—A physician should not be too hasty in accepting a casual relationship between social stress and peptic ulcer, remembering that the Abyssinians and the Hindus of southern India have a high incidence of gastric ulcer.

—Most patients with ulcer will not learn to live a "calm life" and remain on a strict management regimen.

—Physical and mental rest is an important "favorable condition" for healing of the "chronic" peptic ulcer.

—Surgical methods for the prevention of ulcer recurrences are to be considered as stopgaps to be used until some more effective medical method is discovered.

Dr. Ivy prepared his *Journal* paper some time ago and since then he has announced the development of a new hormone, called enterogastrone, which scientists hope will heal ulcers and also prevent their recurrence. The hormone is derived from the mucous lining of the upper intestinal tract of hogs.

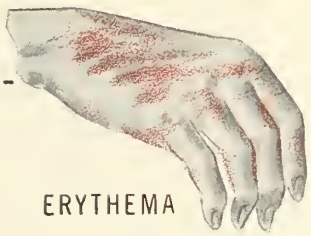
Work in developing this colorless substance was done at Northwestern University medical school, where Dr. Ivy, prior to assuming his present post last September, had headed that institution's department of physiology since 1925.

Dr. Ivy says that scores of patients have been treated with this hormone and "the results are sufficiently encouraging to show this method of attack on the problem of the prevention of recurrences of peptic ulcer is worthy of further study."



ITCHING

symptoms in sequence



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The package also contains separate vials of diluent, permitting the desired dilutions to be made immediately prior to use, thus offering the practical equivalent of fresh, extemporaneously prepared solution.

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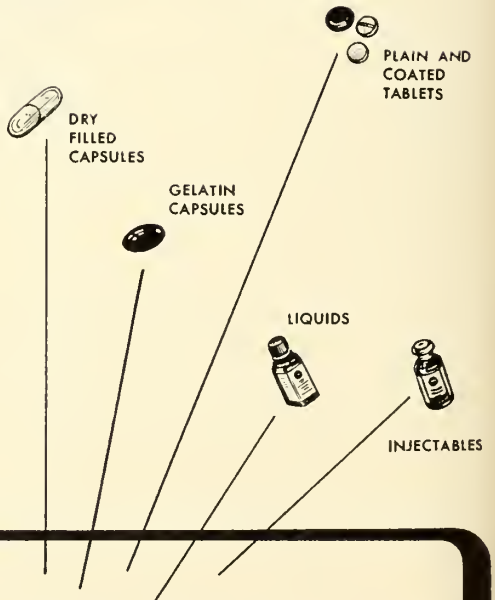
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"Adequate timely replacement of blood was an exceedingly important factor in the reduced mortality of battle casualties admitted to hospitals in World War II," according to Howard E. Snyder, M.D., of Winfield, Kan.

Writing in the January 25 issue of *The Journal of the American Medical Association*, Dr. Snyder states that observation and laboratory investigations revealed that transfusions of whole blood rather than of plasma, the liquid portion of the blood, were needed for battle casualty patients suffering from shock.

"The advantages of adequate blood replacement with whole blood are manifold," states the author. "Mortality from shock is lowered. Prolonged adequate surgical intervention is possible when the replacement of blood is adequate. Operations which lasted three to five hours were not uncommon; in a number of instances they lasted even longer with satisfactory results. In the early days a few wounded persons lost their lives because surgical intervention was inadequate or was cut short due to the patient's poor condition and to the fact that gas gangrene later developed in an undebrided wound or one inadequately debrided. It reduces morbidity. It permits early radical reparative surgical operations."

In conclusion the author points out that "lessons learned in the management of battle casualties insofar as the replacement of blood is concerned have their application in civilian surgical practice."

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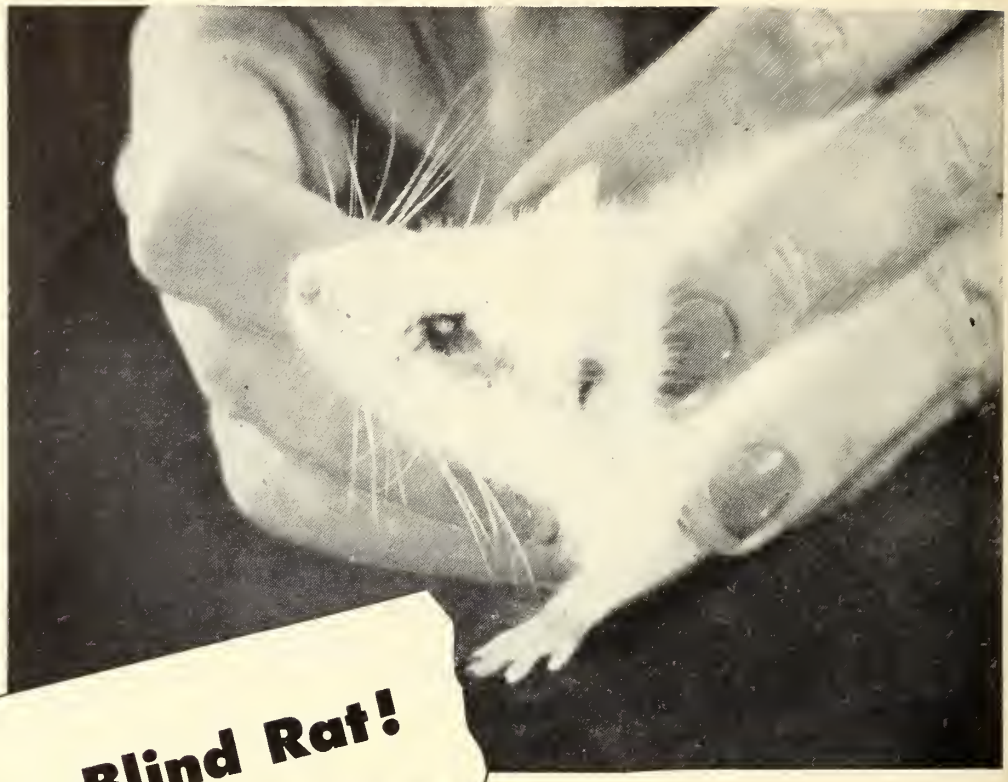
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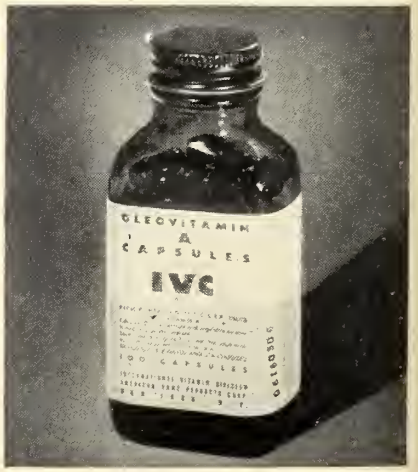


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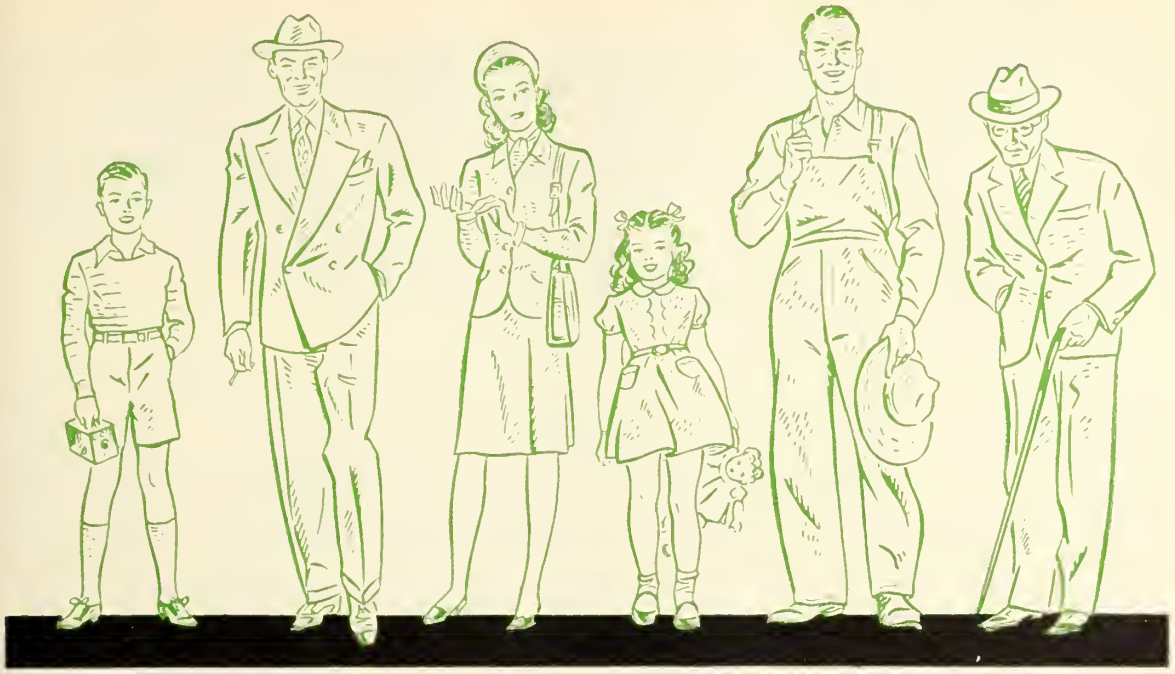


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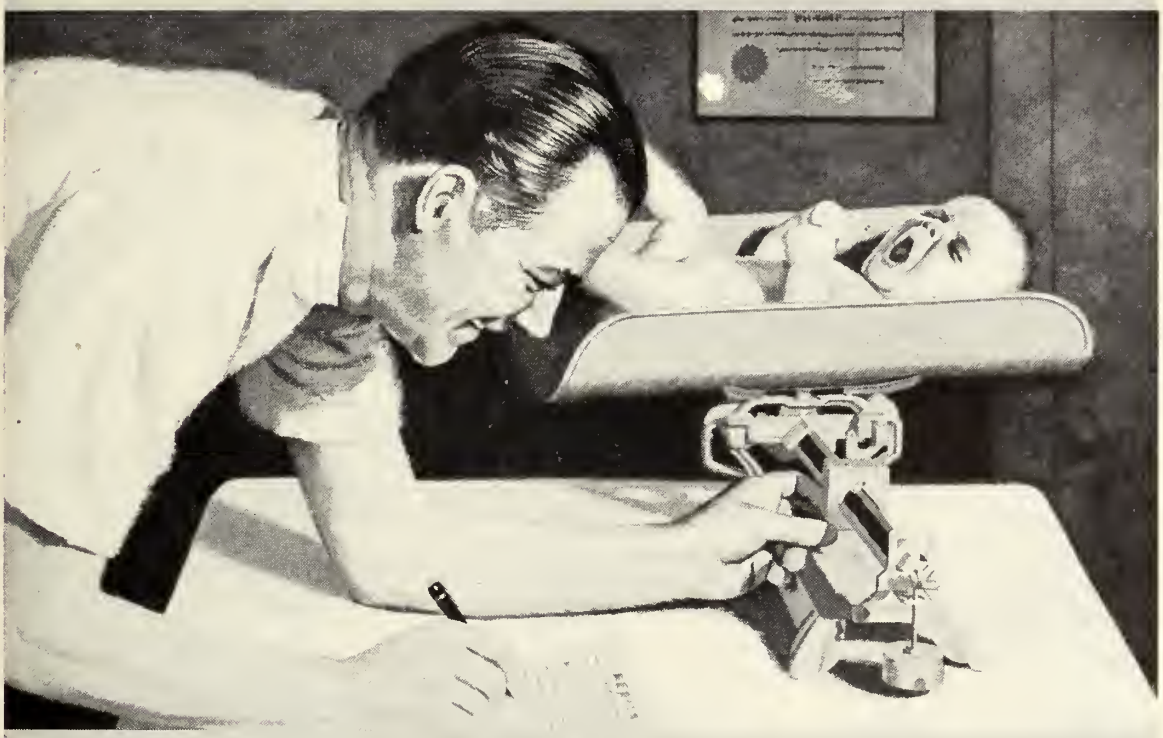


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CONFIRM SAFETY, BENEFITS OF COLD ANESTHESIA FOR SURGERY

"Experience to date continues to confirm the safety and benefit of refrigeration anesthesia," according to Drs. Lyman Weeks Crossman and Frederick M. Allen of New York who first demonstrated the advantages of this type of anesthesia.

Writing in the February 8 issue of *The Journal of the American Medical Association*, the physicians, who were from City Hospital, Welfare Island, state that the "trial period of surgical refrigeration may be measured from the first publication of experiments on animals and clinical cases in 1937, or, better, from the adoption of the method on the surgical service of the City Hospital in 1941."

Experiments have demonstrated that cold serves as a shockless anesthetic in surgery, preserves injured tissue and restrains infection until the patient is strong enough to undergo an operation. Moreover, it reduces pain and swelling.

Drs. Crossman and Allen point out that "in cases of severe trauma of limbs, refrigeration serves preeminently to gain time in an emergency by preserving the injured part for days or weeks until the patient gains sufficient constitutional strength to withstand amputation. A secondary benefit, however, is reported as the development of collateral circulation during the time thus gained, so as to permit a lower level of amputation. This may make the difference between an emergency amputation high in the thigh and an amputation just above the knee a few weeks later. . . . This difference has practical importance for the patient's subsequent walking and earning ability."

The authors recall that the "first observations along the line of preservation of infected or injured parts were made when patients entered our hospital with acutely dangerous infected gangrene, but legal permission for the necessary amputation could not be immediately obtained. We thus learned that packing such limbs in ice or ice bags made possible not only a safe postponement of the operation for several days but even an improvement in the general condition so as to lessen the operative risk. . . .

"A more definite preservation may be attempted in treatment of other infections of the limbs, such as gas gangrene. Refrigeration is helpful even when amputation is inevitable, but in less extreme conditions the radical chilling contributes to save the limb in two days: by directly checking the toxin production and its necrotizing action on the tissues and by gaining time for administration of drugs or other systemic means of cure. A tourniquet is not employed except as a preliminary amputation."

Dr. Crossman cites a previous report of his in which he illustrated how refrigeration aids minor surgery in "restoring fingers which have been cut off so as to hang by a mere shred of skin. Such a finger may be kept well chilled according to instructions given by telephone and will thus remain viable at least during several hours which may elapse before the patient can reach the doctor. Theoretically the interval might extend to 24 hours or more, though there is no clinical proof of such a maximum. After the finger is sutured in place the reduced temperature is still continued for several days but is raised slightly day by day as the nutrition of the severed part improves."



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RESTRICTED USE OF SALT URGED FOR CONGESTIVE HEART FAILURE

Three Boston physicians advocate the restriction of salt in the diet with a liberal intake of fluid for patients with congestive heart failure especially those with coronary and hypertensive heart disease, according to an article in the January 4 issue of *The Journal of the American Medical Association.*

The physicians, who are from the Massachusetts General Hospital, are Edwin O. Wheeler, Graduate Assistant in Medicine, William C. Bridges, Commonwealth Fund Research Fellow, 1945-46, and Paul D. White.

They point out that "with a few notable exceptions, casual limitation of salt and fluid has been the custom throughout the country, and generally more stress has been placed on the restriction of fluid than on that of salt."

When the heart is unable to fulfill its function adequately as a pump and supply sufficient circulation to all of the tissues of the body, such symptoms as shortness of breath, swelling of the legs and abdomen may result. To prevent this accumulation of fluid which produces swelling in the tissues, the physicians treated 50 patients with congestion due to heart diseases of all types during the last year and a half.

Of the 35 patients who followed the salt restricted diet faithfully, 13 did not show improvement, while 22 were better; of the latter group 10 showed great benefit. "In no instance were patients made worse by this therapy," state the authors.

Twenty of the 35 patients had hypertensive (caused by

(Continued on Page 58)

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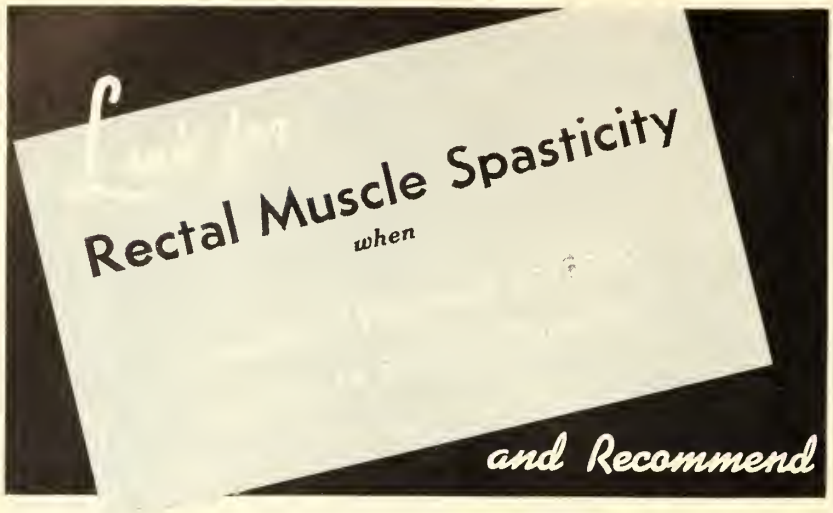
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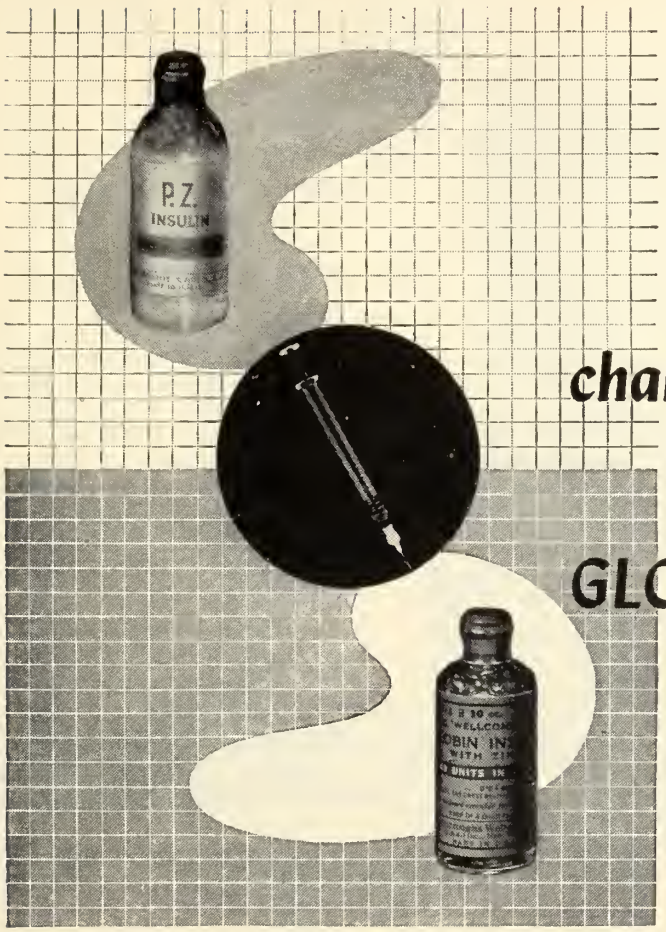
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RESTRICTED USE OF SALT URGED FOR CONGESTIVE HEART FAILURE

(Continued from Page 54)

high blood pressure) and/or coronary heart disease. Eighteen of these showed improvements, in nine of whom it was pronounced.

The physicians warn that "there are certain precautions which must be carefully observed in following a diet low in sodium:

1. Salt, soda or baking powder should not be used in the cooking or at the table. Substitutes for salt which contain sodium should not be used.

2. Sweet butter or butter that has been washed free of salt may be used. Bread and salad dressings must be prepared salt free. Canned foods, unless prepared salt free, should not be used.

3. Salty appetizers or salted foods, such as nuts, potato chips, sardines, olives, pickles and relishes, are to be guarded against. Cheese and smoked or salted meats are not permitted.

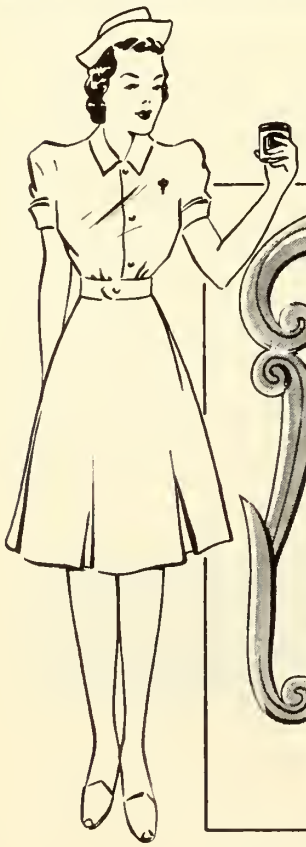
4. Medicines containing sodium should not be used against gas or indigestion. Calcium salts are helpful in this regard."

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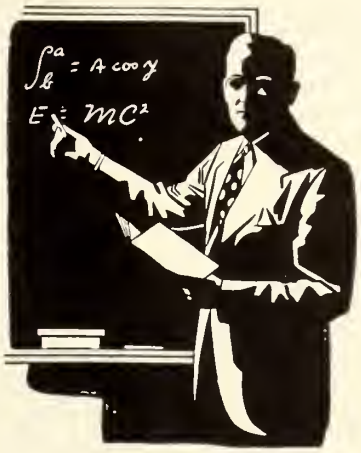
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*Int. Abst. of Surgery 83:1-12, July 1946.

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THREE PHYSICIANS REPORT ALLERGIC REACTIONS TO PENICILLIN

There are at least three reported types of allergic reactions to penicillin, according to three doctors writing in the current issue of the *Archives of Dermatology and Syphilology,* published by the American Medical Association.

The physicians—Sidney Friedlaender of Detroit and Robert M. Watrous and Samuel M. Feinberg of Chicago—state that the most common allergic response is hives. "In most instances this resembles a serum sickness type of reaction and does not interfere with the continuation of treatment," they state.

Another type of reaction is an eruption of blisters following penicillin treatment. This reaction appears to be related in some manner to a previous fungous infection of the skin. Contact dermatitis, which is almost always a local reaction, is a third manifestation.

The doctors report five cases of contact dermatitis in persons handling penicillin. They state that "all of the patients were completely relieved of symptoms when removed from contact with the drug. Four of these patients were industrial workers engaged in the manufacture of penicillin for commercial use, and one was a chemist producing the drug by the surface culture method for experimental study."

The physicians point out that the "patients in this study as well as the majority of those described in the [medical] literature have been persons engaged in the manufacture

(Continued on Page 66)

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*Levine, S. Z.: J.A.M.A. 128:283, May 26, 1945

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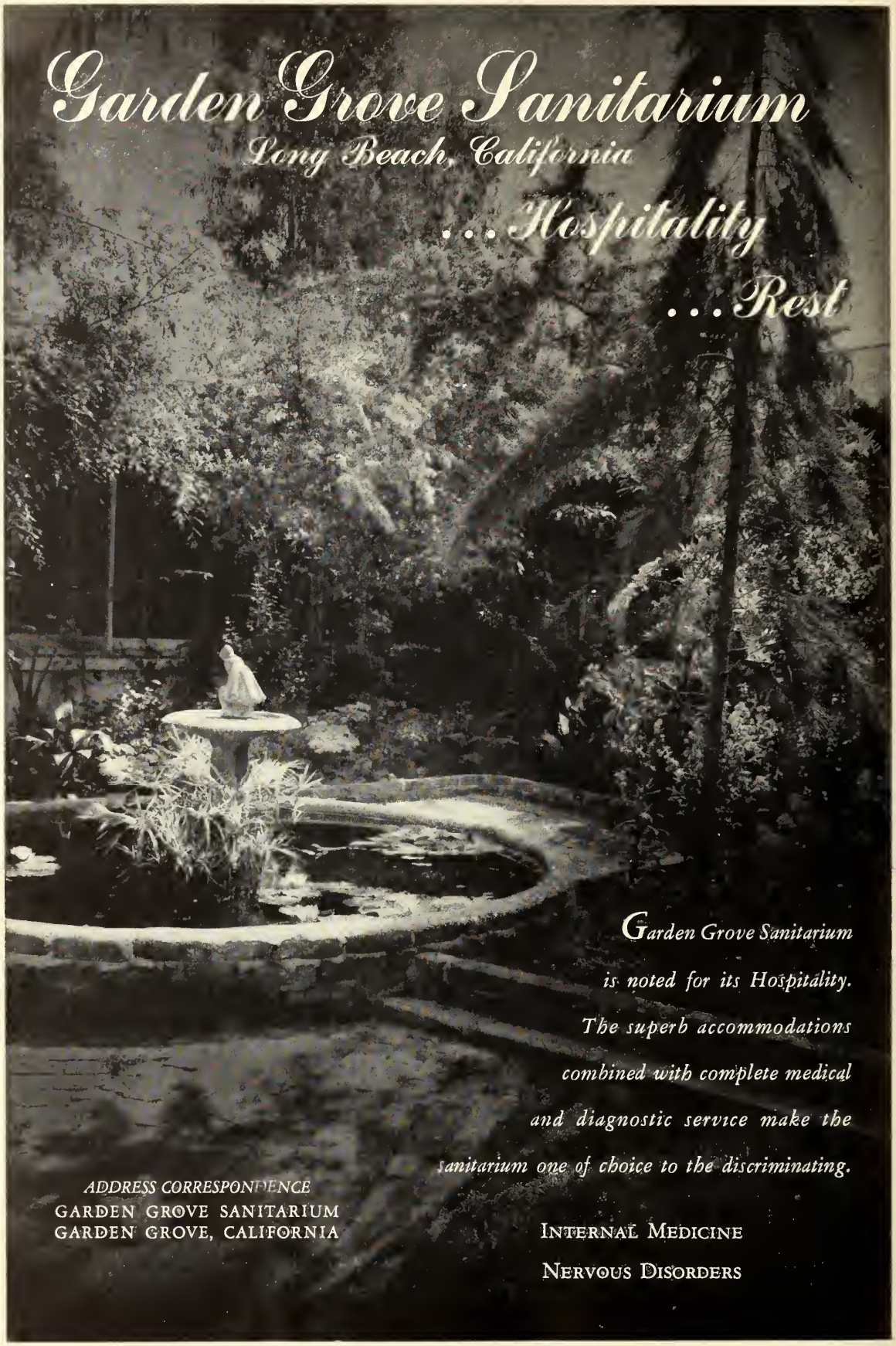


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1. J.A.M.A. (April 22) 1944

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UPJOHN VITAMINS

THREE PHYSICIANS REPORT ALLERGIC REACTIONS TO PENICILLIN

(Continued from Page 62)

or handling of penicillin, rather than patients under treatment with the drug. This is readily understood when it is recalled that until recently penicillin was employed chiefly by the parenteral [injected beneath the skin or into the veins] route. No prolonged and repeated contact with the skin or mucous membrane had occurred in the vast majority of patients treated. In our present series we noted that a relatively long period of contact with the allergen (nine to 18 months) was necessary before sensitization became manifest. It is also conceivable that the skins of persons handling chemicals possess a lower tolerance to allergenic agents than the skin of the average person."

In conclusion, the authors say that the "rapidly increasing use of penicillin locally in such forms as ointments, sprays, drops, troches and lozenges will create many opportunities favoring the development of the contact type of allergic reaction."

Guy de Maupassant (1850-1893).—This master of the short story became a victim of general paralysis during the last four years of his life, the final link in a long chain of neurotic heredity, drug abuse, and possible syphilitic infection. In 1892, he attempted suicide, and subsequently lost all reason. His friends hoped that the sight of his yacht would stir some memory within him, and so took him down to the sea in his strait jacket. He gazed at his beloved boat long and tenderly, but could not speak.—Warner's *Calendar of Medical History.*

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1 Gold is of no value in any form of joint disease except rheumatoid arthritis.

2 Gold does not benefit all patients with rheumatoid arthritis.

3 Gold is not the final answer to the treatment of rheumatoid arthritis.

4 Toxic symptoms may appear at any time during this form of therapy.

5 From 10 to 20 per cent or more of patients who have received gold therapy relapse after stopping the drug.

6 Extreme care must be used during gold therapy, and the physician must be familiar with the details of such treatment before undertaking this.

7 Injections of certain gold salts in proper dosage may be followed by subjective and objective evidence of improvement in the majority of selected patients with rheumatoid arthritis.

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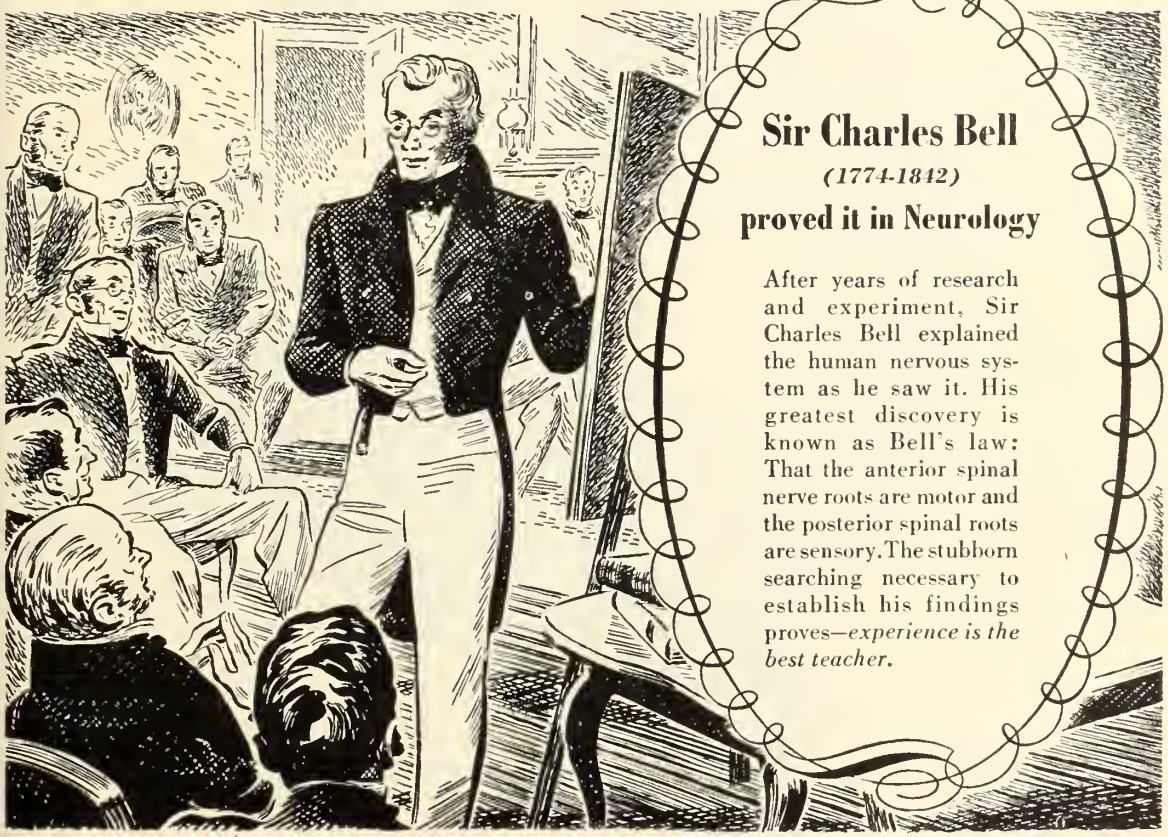
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give enough-soon enough-long enough

(1) Menefee, E. E., Jr., and Atwell, R. J.: South. M. J. 39:726 (Sept.) 1946.
(2) Woodward, F. D., and Holt, T.: J.A.M.A. 129:589 (Oct. 27) 1945.



PENICILLIN SCHENLEY. Suggested dosage: Intramuscular, 20,000 to 40,000 units every three hours, continued until the patient has been symptom-free for forty-eight to seventy-two hours. Topical, instillation of 3 to 5 cc. of a solution containing 5,000 to 10,000 units per cc., repeated as frequently as indicated in the judgment of the physician.



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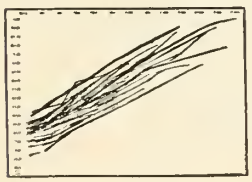
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Samuel Johnson (1709-1784).—The famous lexicographer and essayist was burdened with physical infirmities since childhood . . . an inherited scrofulous taint, dyspepsia, asthma, gout, to mention a few. His melancholic tendencies reached a zenith when he was working on "The Dictionary." Yet, despite his gloomy irritable temper, he was kind-hearted and generous. Boswell tells of Johnson coming home late one night and finding a woman of the street lying ill and exhausted in the gutter. He took her home to care for her.—Warner's *Calendar of Medical History.*

Immanuel Kant (1724-1804).—Never really sick, yet never a well man, Kant lived to old age by observing a strict, regular way of life. In early years, Kant often said that his narrow chest, cramping his heart and lungs, made him "feel weary of life." In the last year of his long existence, only then confined to bed, he was mentally agitated by terrifying dreams. Frail though his physique may have been, his thinking was of such transcending greatness that it completely dominated the philosophic thought of the nineteenth century.—Warner's *Calendar of Medical History.*

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[1]Human Fertility 10: 25 (Mar.) 1945.

[2]Warner, M. P.: J.A.M.A. 115: 279 (July 27) 1940.

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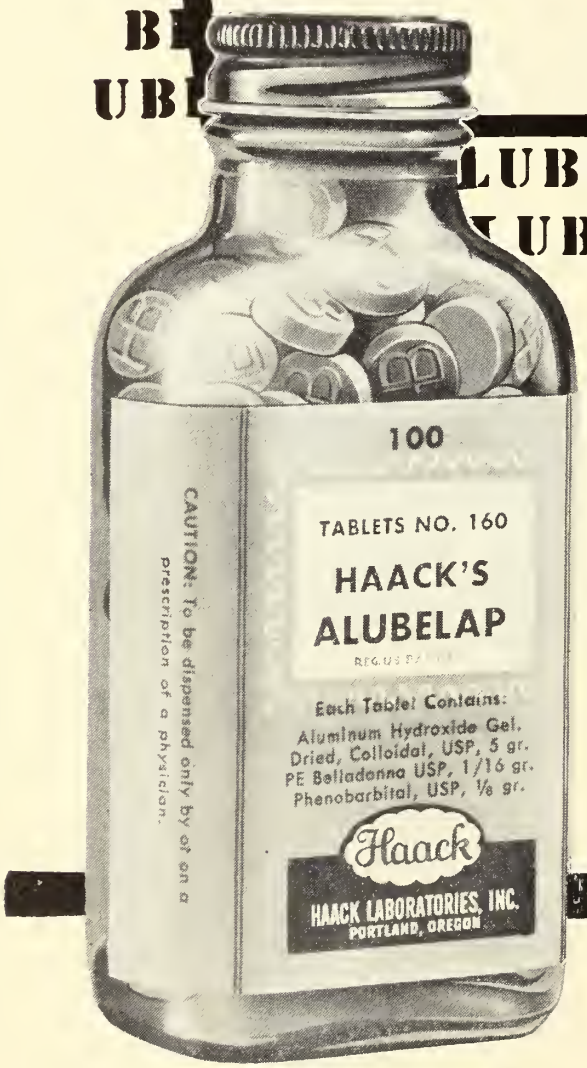
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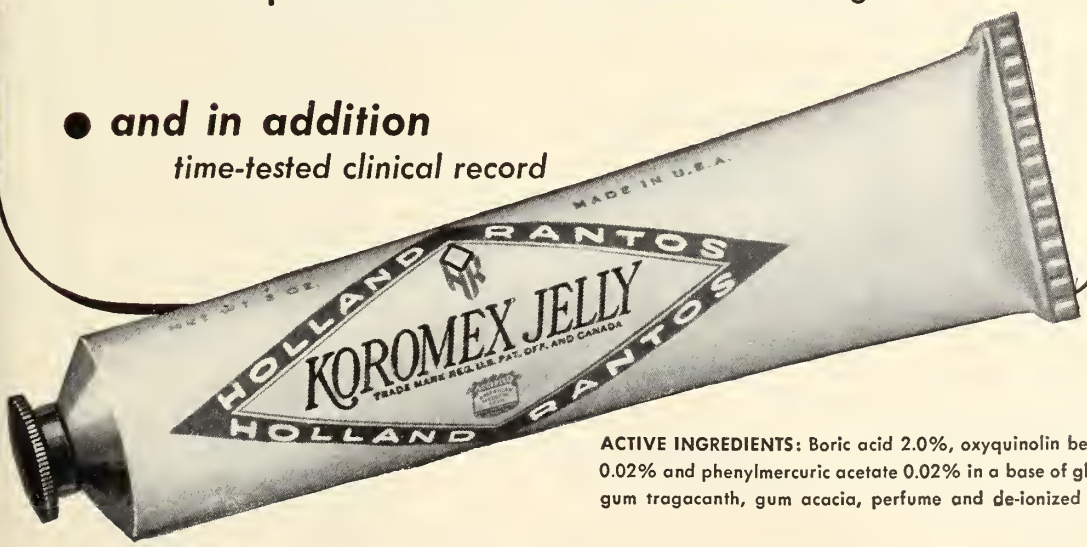
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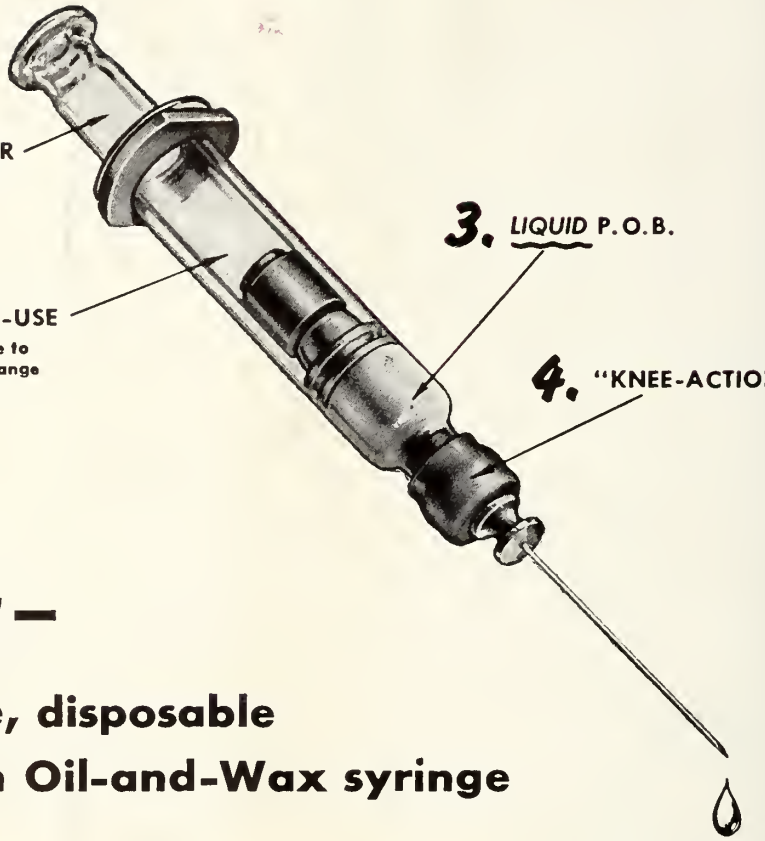
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ORIGINAL ARTICLES

PUBLIC RELATIONS OF A STATE MEDICAL SOCIETY
John W. Cline, San Francisco 213

SOME CLINICAL ASPECTS OF RHEUMATIC FEVER IN THE ADULT ON THE PACIFIC COAST, Maurice Eliaser, Jr., San Francisco 217

THE ELECTROCARDIOGRAM IN THE DIAGNOSIS AND MANAGEMENT OF RHEUMATIC FEVER, Maurice Sokolow, San Francisco 221

THE DIFFERENTIAL DIAGNOSIS OF ADULT RHEUMATIC FEVER AND RHEUMATOID ARTHRITIS, Ephraim P. Engleman, San Francisco 227

PUBLIC MEASURES FOR THE CONTROL OF RHEUMATIC FEVER IN ENGLAND
John Parkinson, London 230

RHEUMATIC FEVER CONTROL PROGRAM IN CALIFORNIA
Harold Rosenblum, San Francisco 233

DIAGNOSIS AND TREATMENT OF ARTERIOVENOUS ANEURYSM IN A NAVAL HOSPITAL, G. Arnold Stevens, Beverly Hills 235

FRACTIONAL SPINAL ANESTHESIA FOR SHORT UPPER ABDOMINAL SURGERY, Joseph Brill, Inglewood and D. E. Stewart, Huntington Park 238

POISON OAK—NEW ANTIGENS AND THEIR EFFECT ON SENSITIZED PATIENTS, Ernest K. Stratton, San Francisco 240

THE NEWER DRUGS FOR ALLERGIC DISORDERS AND THEIR PLACE IN THE HISTAMIN THEORY, Milton M. Hartman, San Francisco 242

MEDICAL PROGRESS: PROGRESS IN THE TREATMENT OF CARCINOMA OF THE PROSTATE, A. J. Scholl, Los Angeles 249

EDITORIALS 254
CLINICAL CONFERENCE 257
CALIFORNIA MEDICAL ASSOCIATION 260
NEWS AND NOTES 267
INFORMATION 269
LETTERS TO THE EDITOR 270
BOOK REVIEWS 272
BOARD OF MEDICAL EXAMINERS Adv. page 42
ANTISPASMODICS Adv. page 10

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Los Angeles—State Office Building, 217 West First Street, MAdison 1281.
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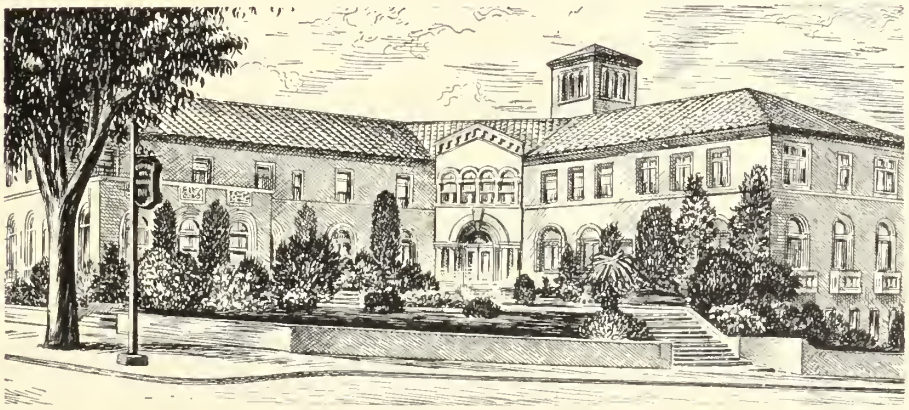
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Ar-Ex Cosmetics, Inc..... 16
Arlington Chemical Co., The..... 63
Ayerst, McKenna & Harrison Limited..... 23
Baker Laboratories, The..... 61
Barnes-Hind Laboratories 52
Baxter, Inc., Don..... 51
Benjamin, M. J..... 66
Birtcher Corporation, The..... 58
Bolin, M.D., Zera E., Pathologist..... 28
Borcherdt Malt Extract Company..... 52
Borden Company, The..... 25
Broemmel's Pharmaceuticals 3
Burroughs Wellcome & Co.....15 and 71
California Sanatorium, The..... 56
Calso Water Co..... 38
Camp & Company, S. H..... 27
Ciba Pharmaceutical Products..... 12 and 13, Insert 56 and 57
Classified Advertisements 8
Coca-Cola Company, The..... 17
Compton Sanitarium 10
Cook County Graduate School of Medicine.. 14
Cutter Laboratories 4th cover
Devereux Schools 3
Doctors Business Bureau, The..... 36
Durex Products, Inc..... 42
French Hospital 24
Garden Grove Sanitarium..... 69
Greens' Eye Hospital..... 7
Guth, C. Rodolph..... 7
Haack Laboratories, Inc..... 40
Hanger, Inc., J. E..... 60
Harrower Laboratory, Inc., The..... 29
Hershey Pharmaceutical Co..... 17
Hygeia Sanatorium 28
Ingram Laboratories, Inc..... 10
International Vitamin Corporation..... 32
Jenkel-Davidson Optical Co..... 62
King Ambulance Company..... 16
Kinney & Sons, Inc., H. W..... 45
La Loma Feliz..... 17
Las Encinas Sanitarium..... 30
Lilly and Company, Eli.....Insert 32
Livermore Sanitarium 70
Los Angeles Tumor Institute..... 48
Luzier's, Inc. 30
M & R Dietetic Laboratories, Inc..... 11
McCall's Desert-Air Lamps..... 26
McCarty, Inc. 46
Mead Johnson & Company.....3rd cover
Medical Protective Company, The..... 59
Menninger Foundation 20
Mosby Company, C. V., The..... 54
Moulin Studios, Gabriel..... 20
National Dairy Products Co., Inc..... 37
New York Polyclinic Medical School, The... 50
Noble Placement Agency..... 42
Officers, California Medical Assn...2, 4, and 6
Park Sanitarium 38
Parke, Davis & Company...2nd cover, 1 and 35
Pasadena Research Laboratories, Inc..... 68
Philip Morris & Co., Ltd., Inc..... 41
Physicians Casualty Association..... 14
Physicians Formula Cosmetics, Inc..... 52
Pottenger Sanatorium and Clinic, The..... 24
Procredit Company 28
Quinn Properties 64
Raleigh Hills Sanitarium, Inc..... 65
Reynolds Tobacco Co., R. J..... 21
Richardson Mineral Springs..... 57
Riggs Optical Co..... 56
Saint Francis Hospital..... 36
St. Luke's Hospital..... 29
Sandoz Chemical Works, Inc..... 18
San Francisco Surgical Co..... 57
Schering Corporation 49
Schmid, Inc., Julius..... 67
Searle & Co., G. D..... 33
Servex, Inc. 70
Shadel Sanitarium, Inc..... 31
Sharp & Dohme..... 72
Smith-Dorsey Company, The..... 53
Stacey, Inc., J. W..... 60
Stearns & Co., Frederick..... 42
Stuart Oxygen Company..... 44
Upjohn Company, The..... 9
Urell, Inc. 48
Varick Pharmacal Co., Inc..... 55
Wander Company, The..... 47
Warren-Teed Products Co., The..... 5
White Laboratories, Inc., The..Insert 16 and 17
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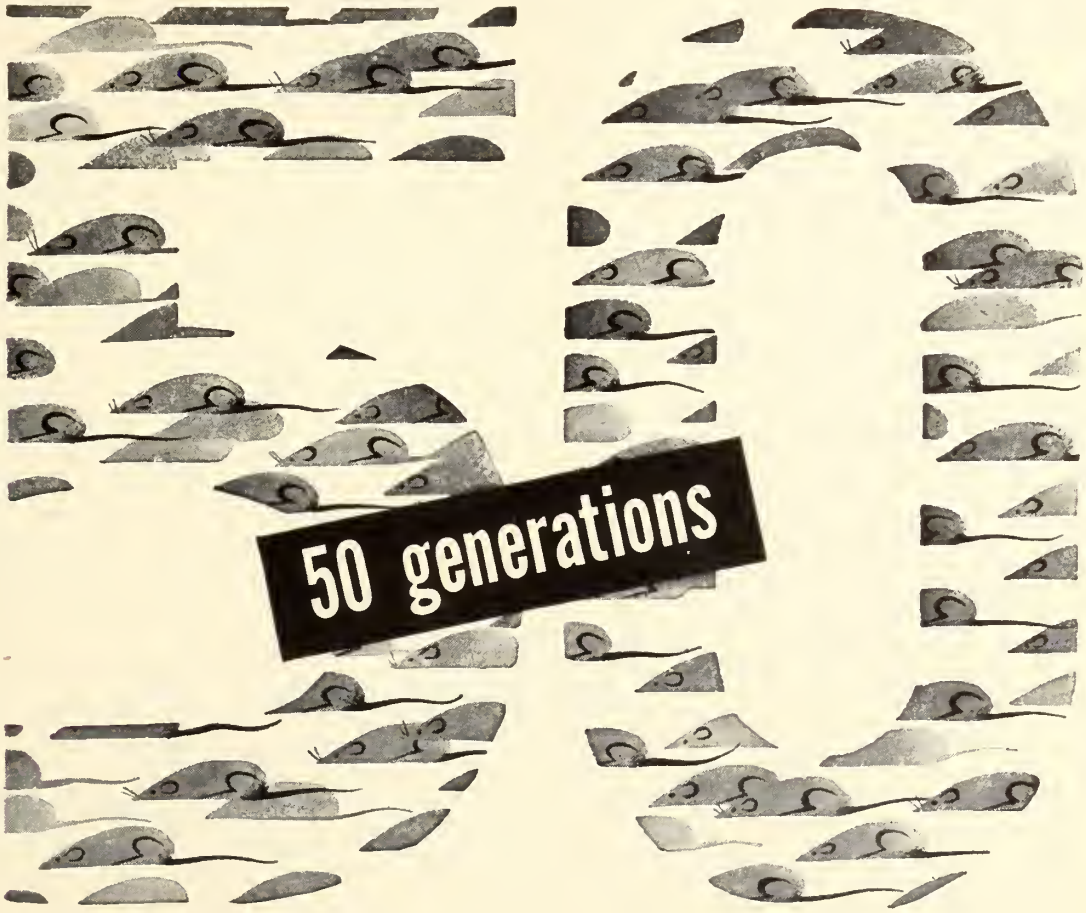
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1. National Research Council Bull. No. 109 (Nov.) 1943, p. 36.
2. Southern M. J. **3**:172 (Feb.) 1946.
3. Statistical Bull. Metropolitan Life Ins. Co. **27**:6 (Dec.) 1946.

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Voigt, Philip Reed, *Long Beach*
Wayne, George J., *Los Angeles*
Wilson, Stanley M., *Los Angeles*
Winer, Julius H., *Beverly Hills*
Wolk, Eliot, *Studio City*
Woodworth, Philip R., *Sierra Madre*
Zucker, Milton O., *South Gate*

Marin County (1)

Jennings, L. S., *Inverness*

Orange County (5)

Bassett, P. H., *Corona Del Mar*
Heiligman, Raymond, *Santa Ana*
Powers, Kenneth V., *Fullerton*
Poyas, John L., *Laguna Beach*
Weaver, Samuel W., *Santa Ana*

(Continued on Page 17)

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The Cold Figures

. . . clinical rickets in 37% of 9-months-and-less infants.[1]

. . . signs of rickets in 90% of a group of pre-school children.[2]

. . . histologic evidence of rickets in 46.5% of a group aged 2 to 14, with a peak of 62% in the 10 to 11 year group.[3]

. . . dental cavities twice as frequent in 5 to 15-year old children not on vitamin D as in those receiving it.[4]

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. . . "by the tenth or twelfth day of life, vitamin D in a concentrated form . . . should be started."[5]

. . . administer vitamin D prophylaxis "... from the second week . . . until maturity . . . "[6]

. . . "the addition of vitamin D to the diet is just as important for older children . . . "[7]

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1. Levy, J. and Silver, H. B.: Arch. Ped., 56:96-105 (Feb.) 1939.

2. Moore, C. U.; Brodie, J. L.; Thornton, A. J.; Lesem, A. M.; Cordua, O. B.: Am. J. Dis. Child., 54:1227-1228 (Dec.) 1937.

3. Follis, R. H., Jr.; Jackson, D.; Elliot, M. M.; Park, E. A.: Am. J. Dis. Child., 66:1-11 (July) 1943.

4. Brown, A. and Robertson, E. C.: Can. Med. J., 48:297-302 (April) 1943.

5. Anderson, N. A.: Pennsylvania M. J., 48:566-568 (Mar.) 1945.

6. Kugelmass, E. N.: Newer Nutrition in Pediatric Practice, pp. 651-653, Lippincott, Philadelphia, 1940.

7. Nutting, R. E.: Minn. Med., 26:1039-1044 (Dec.) 1943.

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CHANGES IN MEMBERSHIP

(Continued from Page 16)

Riverside County (9)

Bendix, Paul A., *Banning*
Bingham, Robert, *Riverside*
Cameron, Stuart A., *Riverside*
Clark, Helen S., *Riverside*
Mahlmann, Carl, *Riverside*
Mead, James G., *San Jacinto*
Merrill, Robert L., *Hemet*
Wilkins, Howard F., *Coachella*
Zeman, E. W., *Riverside*

Sacramento County (11)

Blumenfeld, Charles M., *Sacramento*
Coleman, Warren R., *Sacramento*
Doval, John H., *Sacramento*
Ferris, George J., *Sacramento*
Hendry, Edwin A., *Sacramento*
McKibbin, John P., *Sacramento*
Rhoden, Jackson A., *Sacramento*
Simmons, Hugh M., *Sacramento*
Sullivan, Daniel J., *Sacramento*
Swan, Otis D., *Sacramento*
Wachsberger, Alfred, *Sacramento*

San Bernardino County (2)

Hamilton, Robert S., *San Bernardino*
Sanborn, Clifton E., Jr., *Ontario*

(Continued on Page 20)

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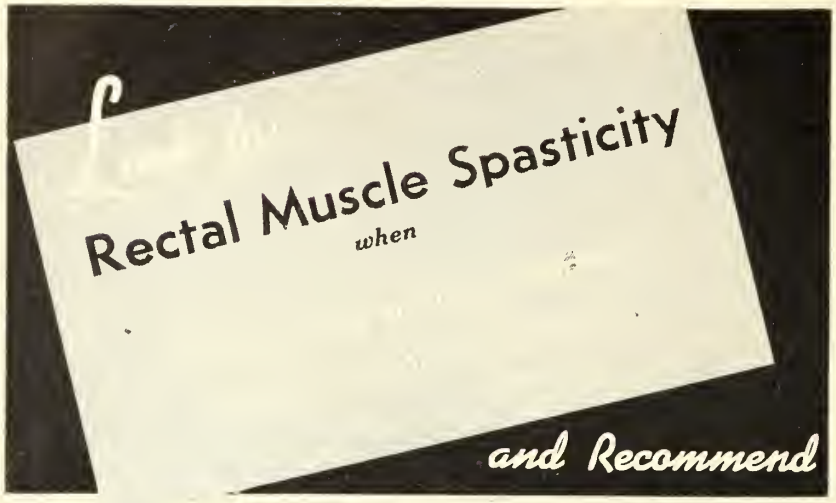
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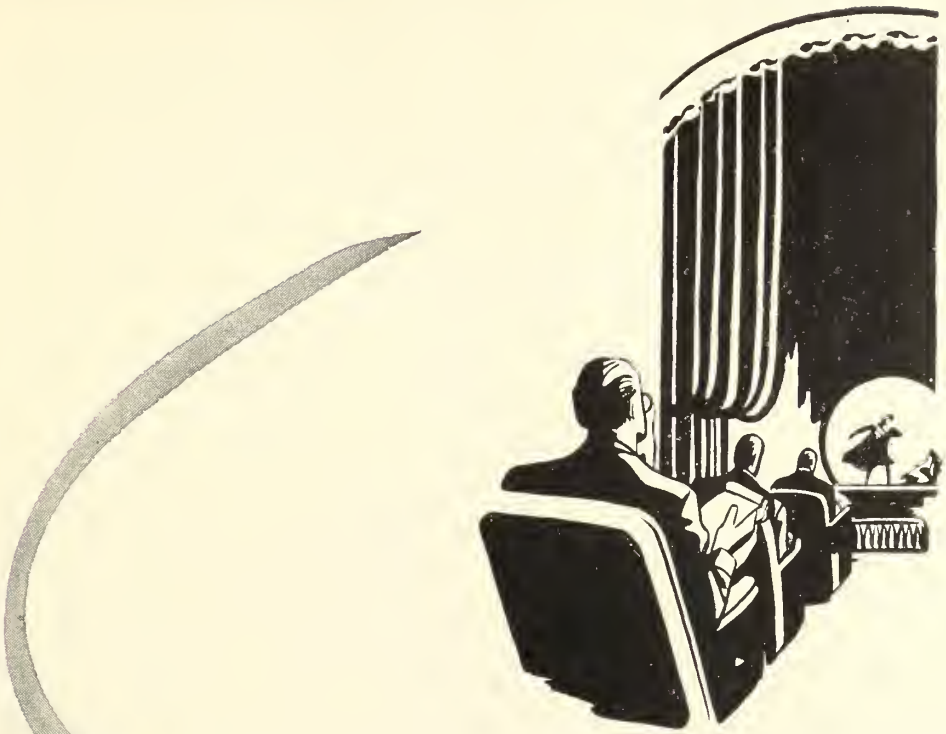
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COUNTY SOCIETIES CHANGES IN MEMBERSHIP

(Continued from Page 17)

San Diego County (6)

Albertson, H. K., *San Diego*
Clarke, R. Manning, *San Diego*
Davis, Joseph B., *Oceanside*
Launder, L. H., *La Mesa*
Soldmann, W. T., Jr., *La Mesa*
Tighe, William J., *San Diego*

San Francisco County (7)

Fleischmann, Karl, *San Francisco*
Morgan, John A., *San Francisco*
Niebauer, John J., *San Francisco*
Oppenheimer, Arnold, *San Francisco*
Quinn, Francis B., *San Francisco*
Russell, Lum E., *San Francisco*
Shumate, Thomas E., *San Francisco*

San Mateo County (1)

Geller, Phillip S., *Redwood City*

Santa Barbara County (7)

Ashton, Paul L., *Santa Barbara*
Hansen, Paul Scott, *Santa Barbara*
Hoover, Harold, *Santa Barbara*
Owens, Daniel E., *Santa Barbara*
Rhorer, Roger, *Santa Barbara*
Schnedorf, J. G., *Santa Barbara*
Tirrell, C. Malcolm, *Santa Barbara*

Santa Clara County (13)

Adams, Deane T., *San Jose*
Anderson, Charles Lee, *San Jose*

(Continued on Page 22)

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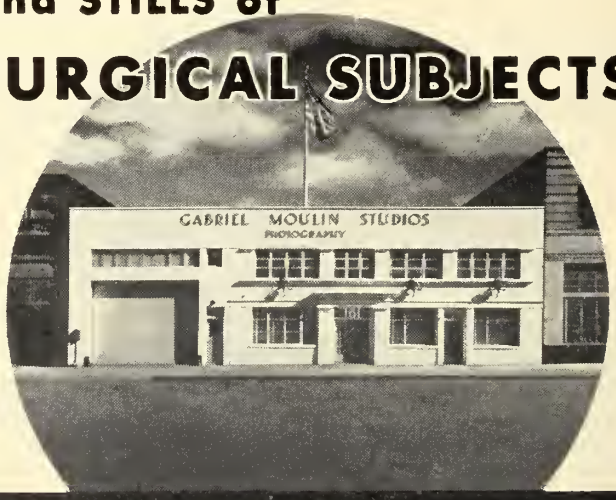
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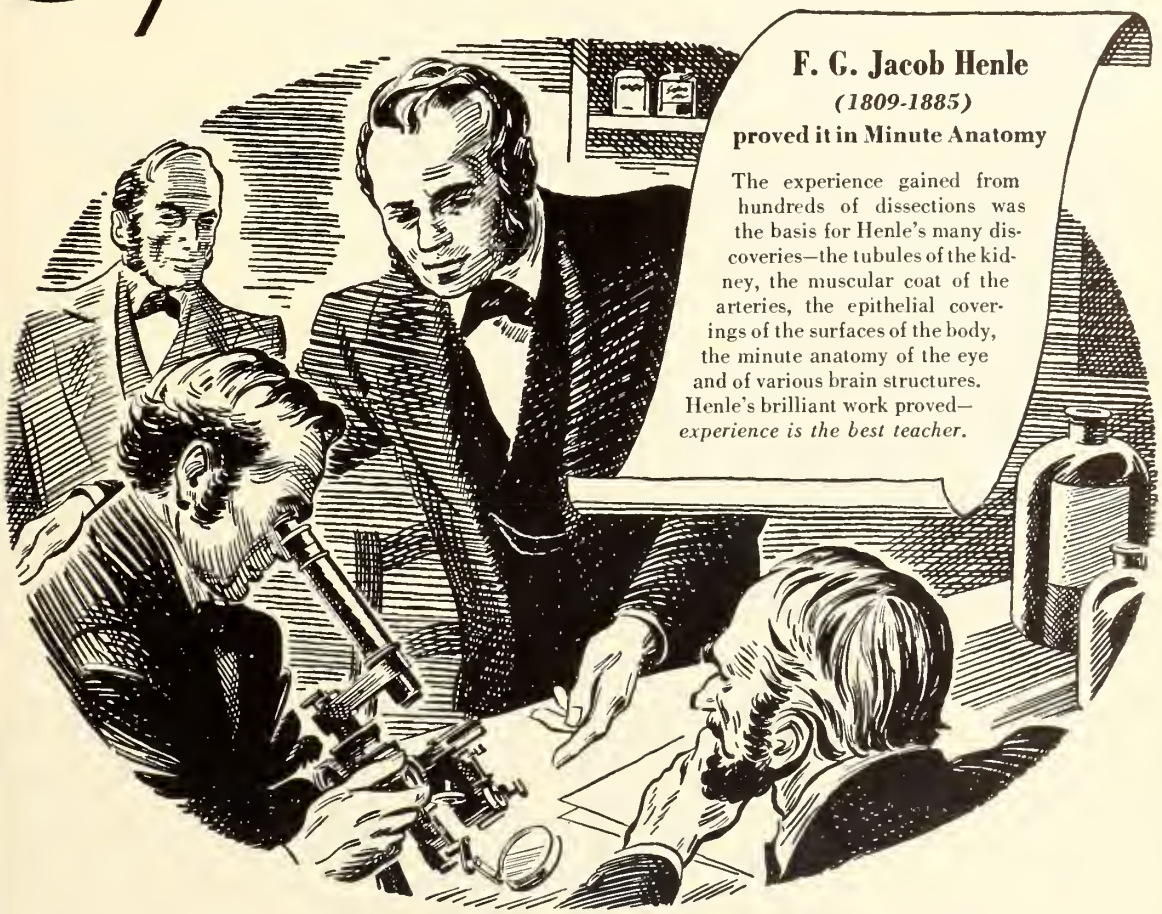
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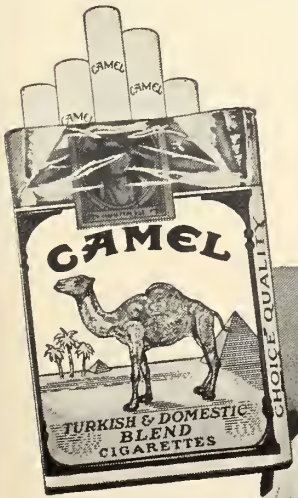
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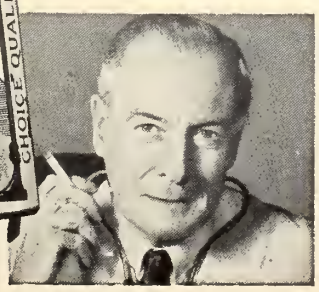
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COUNTY SOCIETIES CHANGES IN MEMBERSHIP

(Continued from Page 20)

Burkhart, Roger J., *San Jose*
Beaver, H. J., *Palo Alto*
Carol, Hugh W., *San Jose*
Johnson, Lester J., *San Jose*
Lamon, John D., Jr., *San Jose*
Liebenberg, H. S., *San Jose*
Meyer, Robert W., *Palo Alto*
Molineux, William L., *San Jose*
Randle, Harold Y., *San Jose*
Sanfillippo, Philip J., *San Jose*
Thygeson, Phillips, *San Jose*

Sonoma County (1)

Bloedau, E. L., *Santa Rosa*

Tulare County (6)

Dalby, W., *Dinuba*
Feldmeyer, J. E., *Exeter*
Klaus, A. W., *Visalia*
Mickel, Arthur, *Lindsay*
Riatt, A. E., *Woodlake*
Schor, Irving M., *Visalia*

Yuba-Sutter-Colusa County (3)

Cress, Paul C., *Marysville*
Fratis, Anthony M., *Marysville*
Schmidt, Walter J., *Marysville*

Transfers (18)

Anderson, Frank R., from *Santa Clara County* to *Los Angeles County*
Austin, Florence O., from *San Bernardino County* to *Los Angeles County*
Badertscher, V. A., from *Fresno County* to *Tulare County*
Balch, Harry E., from *Butte-Glenn County* to *Oronge County*
Bormann, E. L., from *San Diego County* to *Santa Clara County*
Burtis, Prentis, from *San Francisco County* to *Contro Costa County*
Caygill, Wayne M., from *San Bernardino County* to *Contra Costa County*
Derieux, George H., from *Santa Barbara County* to *Son Diego County*
Duncan, Ray H., from *Los Angeles County* to *San Bernardino County*
Edgar, James D., from *San Diego County* to *Los Angeles County*
Edwards, James S., Jr., from *Mendocino-Lake County* to *San Mateo County*
Hack, Rudolf W., from *San Francisco County* to *Son Bernardino County*
Horn, Carl E., from *San Francisco County* to *Sacromento County*
Hunt, William R., from *Santa Barbara County* to *San Bernardino County*
McGuire, Thomas E., from *Los Angeles County* to *Orange County*
Mitchell, Edward, from *Imperial County* to *San Diego County*
Pope, Glenn A., from *Alameda County* to *Sacramento County*
Porter, Marshall E., from *Mendocino-Lake County* to *Sonoma County*

Associate Members (6)

Chapman, H. J., *San Diego County*

(Continued on Page 24)



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COUNTY SOCIETIES
CHANGES IN MEMBERSHIP

(Continued from Page 22)

Huff, Miriam Pool, *Alameda County*
Krueger, Albert P., *Alameda County*
Powell, W. A., *Contra Costa County*
Young, E. L., *San Diego County*

Retired Members (38)

Allen, Carlton S., *Los Angeles County*
Allison, Blake S., *Los Angeles County*
Andrews, Howard, *Los Angeles County*
Beebe, J. S., *Orange County*
Betts, Irvin H., *Tulare County*
Boyce, Lee, *Los Angeles County*
Canby, G. B., *Los Angeles County*
Cartmell, T. M., *Los Angeles County*
Clark, William R. P., *San Francisco County*
Duffiey, George W., *Sacramento County*
Duggan, Henrietta, *San Francisco County*
Duncan, Rex, *Los Angeles County*
Early, C. E., *Los Angeles County*
Ewing, Fred, *Alameda County*
Galbraith, Alexander, *Alameda County*
Hilliard, Carlos Grout, *San Bernardino County*
Jenkins, Bertha E., *Alamedu County*
Joyce, Thomas F., *Los Angeles County*
Laist, Otto, *San Francisco County*
Lang, John Henry, *Orange County*
Marsden, Samuel A., *Orunge County*
McCausland, William S., *San Diego County*
Mortensen, W. S., *Los Angeles County*
Musser, Leo P., *Alameda County*

(Continued on Page 28)

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*BOGERT, L. J.: *Nutrition and Physical Fitness, 4th edition, 1943, Chapter IX, p. 22.*
**A.M.A.: *Handbook of Nutrition, 1943, p. 360.*

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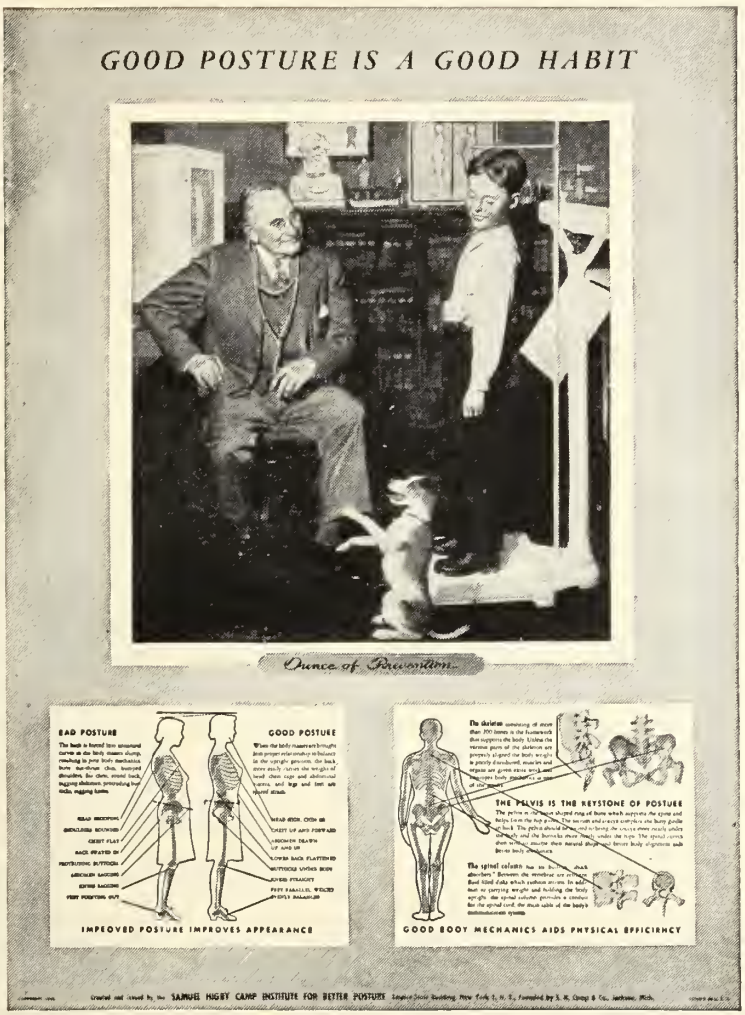
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COUNTY SOCIETIES
CHANGES IN MEMBERSHIP

(Continued from Page 24)

Ramsay, Robert E., *Los Angeles County*
Richter, Conrad C., *Orange County*
Rulison, Elbert T., *Sacramento County*
Schneider, Edwin H., *Los Angeles County*
Shuman, John W., *Los Angeles County*
Shaull, Ethel M., *Santa Clara County*
Singer, J. J., *Los Angeles County*
Snoddy, Cary A., *Solano County*
Thibodeau, Alex, *San Francisco County*
Wallace, W. S., *Orange County*
Watson, Tolbert, *Santa Clara County*
Wells, Maria C., *Los Angeles County*
Woodhull, R. A., *Los Angeles County*
Woolston, Wesley J., *Los Angeles County*

Life Members (1)

Kelker, G. David, *San Luis Obispo County*

Resignations (11)

Allen, A. E., *Ventura County*
Burkard, A. F., *Santa Barbara County*
Edwards, Walton M., *San Francisco County*
Gilmore, Edith S., *San Francisco County*
Hathaway, Hubert R., *San Francisco County*
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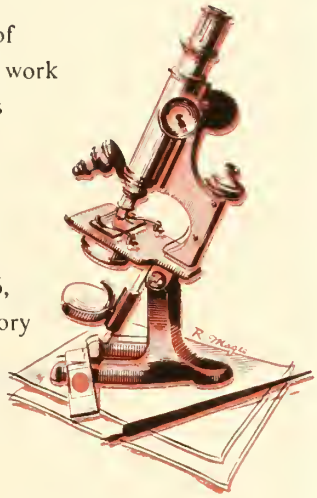
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(Continued from Page 8)

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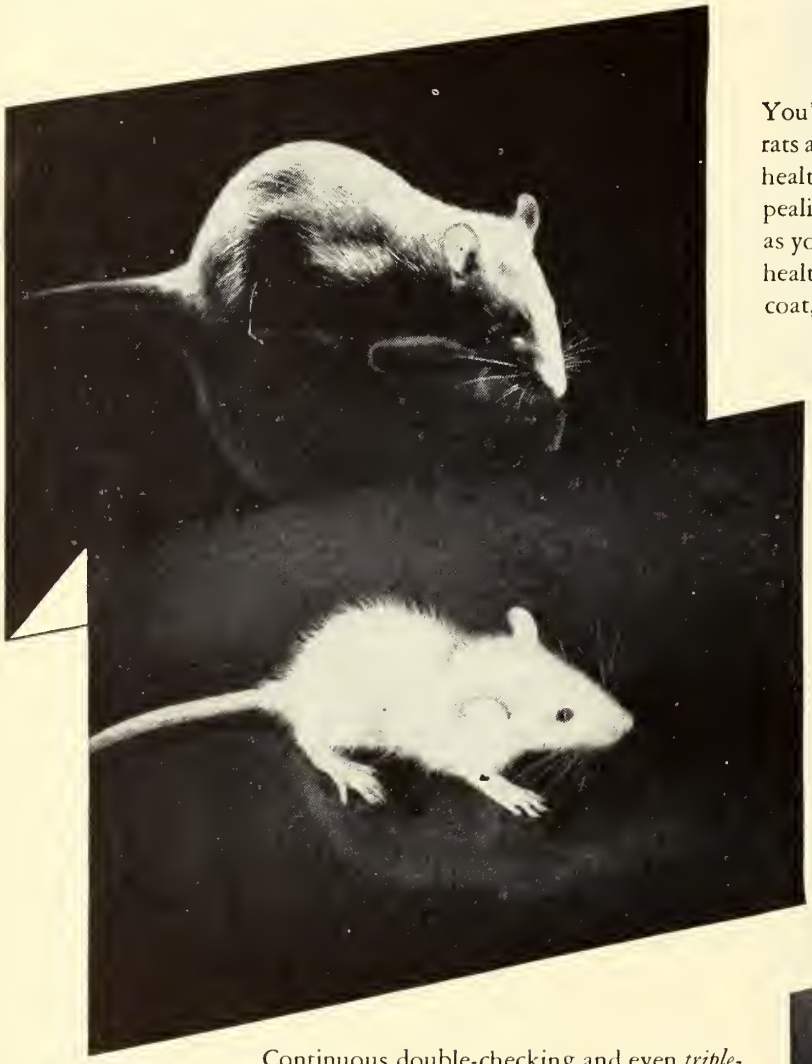
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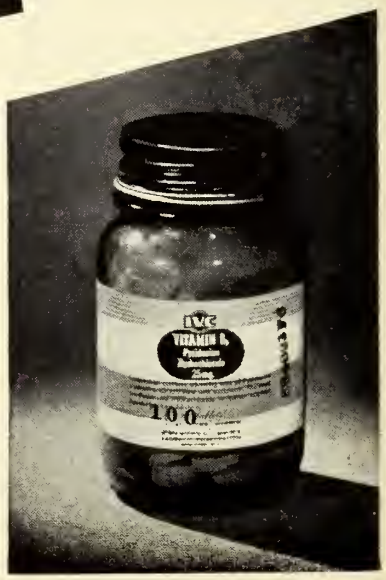
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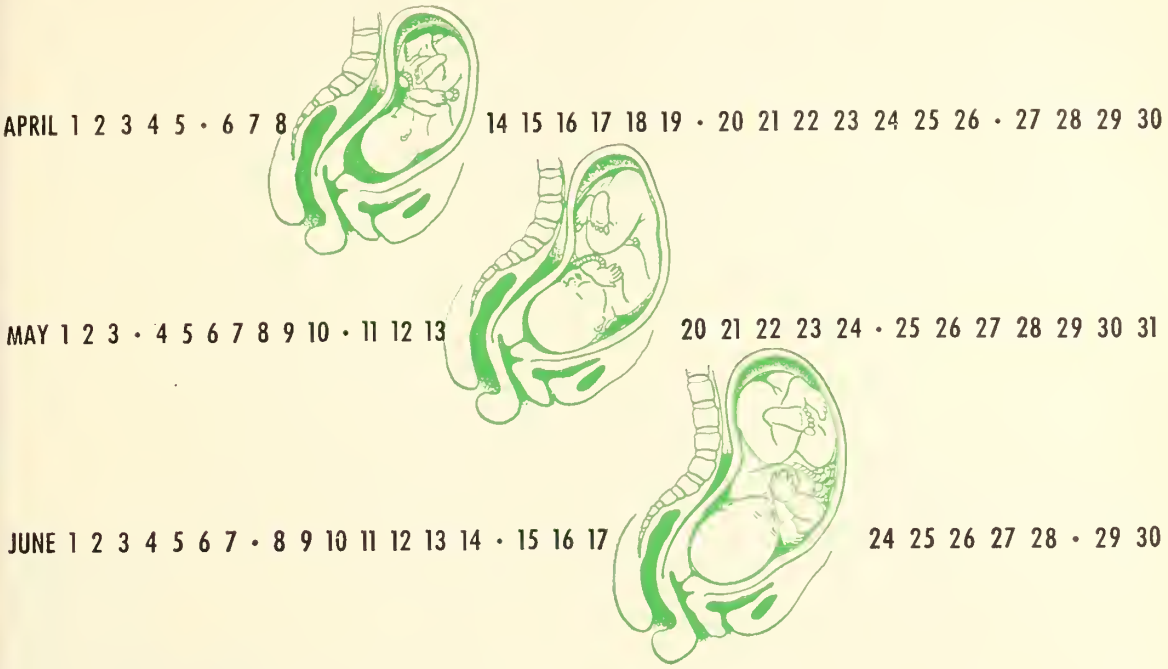
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DEVELOP NEW TECHNIQUE IN HEART SURGERY TO SAVE "BLUE BABIES"

Three Chicago physicians, writing in the November 16 issue of *The Journal of the American Medical Association,* report the development of a new technique in surgery which adds life and gives hope to children born with crippled hearts.

The three physicians, following in the footsteps of Dr. Alfred Blalock, who performed the first epoch-making operation on a "blue baby" in Johns Hopkins Hospital in Baltimore late in 1944, have introduced a new surgical procedure which heretofore was considered impossible. Their type of operation, backed by experimental work on more than 30 dogs, achieves the same results as the famous Blalock operation, but the technique is different.

It was only a short time ago that a "blue baby" with heart disease present at birth was considered beyond the reach of surgical aid. Now there are two types of operations—the same in principle but different in technique—that can help the young patients.

Blue fingernails, clubbed finger tips, purple lips, a bluish complexion and bloodshot eyes are characteristic of the "blue baby," whose malformed heart cannot pump enough blood to his lungs to pick up the vital oxygen the body needs. Lack of oxygen produces the cyanosis or bluish cast. Surgery now performed on a child's heart can increase oxygenation of the blood stream by increasing circulation through the lungs. Dr. Blalock and Dr. Helen B. Taussig, chief of the Children's Heart Clinic at Johns Hopkins, were the pioneers in this type of surgery. The Chicago doctors say in their *Journal* article that "only because we were backed by the fundamental principles set forth by Blalock and Taussig for the surgical relief of anoxemia in certain types of congenital heart disease did we have the courage to attempt this new operation."

Both types of opeartions are performed by entering the chest cavity.

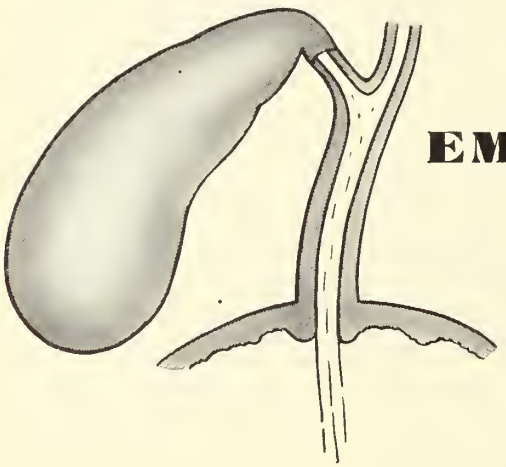
In the Blalock-Taussig operation, the subclavian or innominate artery is joined to either the right or left pulmonary artery, thereby providing increased blood to the lungs. "Sacrifice of the subclavian artery for the anastomosis of its proximal end to the side of the pulmonary artery is associated with little danger to the circulation of the arm," the article says, adding: "Use of the innominate artery for such an anastomosis entails the hazard of an inadequate supply of blood to the brain."

The Chicago doctors found they could achieve the same results as obtained in the Blalock-Taussig operation by making a direct union or connection between the body's main artery, the aorta, and the right or left pulmonary artery. In this operation the blood supply to the arms or the brain is not disturbed.

For some time doctors, experimenting on dogs, have tried to make a direct union between the aorta and the adjoining pulmonary artery. Investigators found, however, that clamping off the aorta for any length of time in a fair percentage of experiments led to paralysis of the hind legs.

The Chicago surgeons overcame this obstacle by developing a special clamp which permits most of the blood to flow through the aorta while the vessel is being sewed to the pulmonary artery. The ordinary clamp, if

(Continued on Page 36)



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DEVELOP NEW TECHNIQUE IN HEART SURGERY TO SAVE "BLUE BABIES"

(Continued from Page 34)

applied to a large artery like the aorta, would tend to slip off because of the pulsations caused by the rhythmic beat of the heart. Construction of the new clamp overcomes this difficulty. A hollow portion of the clamp supports the aorta and each pulsation is transmitted without the instrument coming off the artery.

After the instrument has been applied, a small opening approximately three-eighths of an inch long is made in the small portion of the aorta which has been clamped off. The right or left pulmonary artery is then brought alongside the aorta. A small incision is made in the pulmonary artery and it is then sewed to the aorta, through the new opening into the pulmonary artery to the lungs where it receives oxygen.

The Journal article says the doctors performed their operation on three children. "In attempting this new procedure," the physicians say, "it seemed only fair to choose those patients whose condition was such that without aid their future was hopeless. The two children who survived the operation have been tremendously benefited."

The first operation was performed on a girl, 21 months old. Her progress had appeared normal until she was three months old, the article states, and then the mother observed that the baby "became blue around the lips during her feeding and seemed quite limp at the conclusion of the meal. If she were fed a little too much or took her food too rapidly she became extremely cyanotic and limp, her eyes became fixed, and she lapsed into uncon-

(Continued on Page 38)

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DEVELOP NEW TECHNIQUE IN HEART SURGERY TO SAVE "BLUE BABIES"

(Continued from Page 36)

sciousness. On two occasions the mother thought that the child was dead."

She underwent a three-hour operation on September 13, 1946. In discussing her postoperative recovery, the doctors say:

"Her course was very smooth. She began taking fluids 24 hours after the operation. The most striking change was her color and general behavior. She took her food without difficulty; when disturbed by her doctors she cried for several minutes without turning blue, and in the intervening time she was happy and playful. She gained a pound during the first 11 days after the operation. A later note from the mother states that the baby's condition is excellent, and that her color compares favorably with that of other children who now come in to visit her."

The doctors explain that the operation would not benefit all "blue children," but would help the majority to overcome invalidism and anticipate a normal and reasonably active life.

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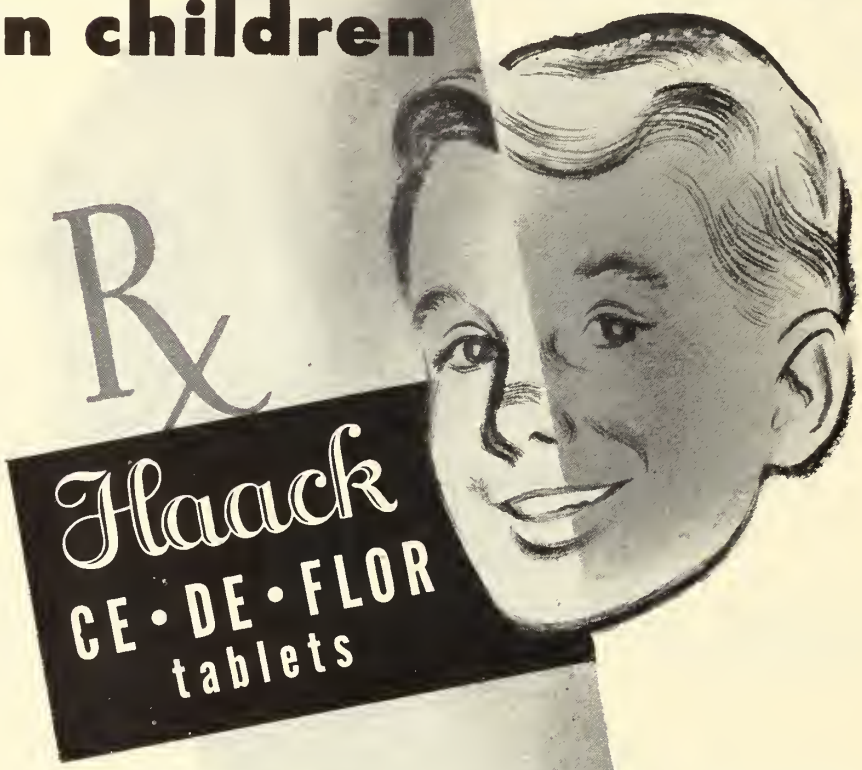


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**Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154; Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60; Proc. Soc. Exp. Biol. and Med., 1934, 32, 241; N. Y. State Journ. Med., Vol. 35, 6-1-35, No. 11, 590-592.*

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By Frederick N. Scatena, M.D.

Secretary-Treasurer

Board Proceedings

Oral examinations were held at the Board Office, 907 State Building, Los Angeles, March 8 and 9, 1947. Approximately 100 applicants were examined during the two-day period.

The Board met in regular session at the Mayfair Hotel, Los Angeles, March 10 to 13, 1947. Hearings were held on petitions for termination of probation and for restoration of revoked certificates, as well as on disciplinary matters which included charges of aiding and abetting, narcotic law violations, illegal operations and advertising.

Written examinations were also conducted at this meeting, with 200 applicants appearing. The written examination covered a period of three days with three two-hour sessions each day.

For the period January 1, 1947, to February 28, 1947, there were filed 442 applications for physician's and surgeon's certificates, 180 for written examination, 197 for reciprocity, 15 on Government Credentials, and 50 on National Board Credentials.

At the meeting of the Federation of State Medical Boards, a paper was read by the Secretary of the Board, on the subject of Medical Licensure in California. Many Members and Executive Officers of other State Boards were amazed at the amount of work completed and the number of applicants that have been processed during the past few years by the California Board.

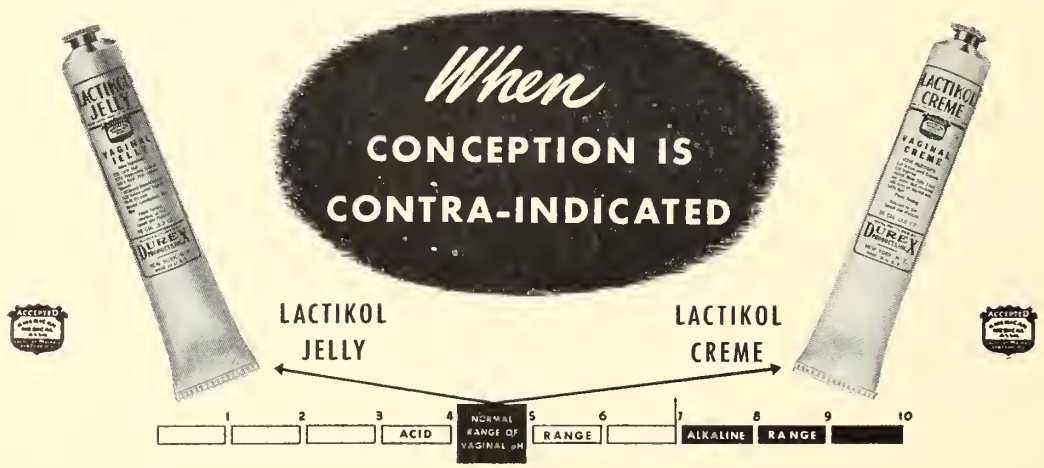
During the meeting of the Committee of Deans of Medical Schools, great stress was placed on the necessity of again popularizing and reactivating the field of general practice. Reports from all sections of the United States indicate rural districts are badly in need of physicians. The desire of the young doctors to specialize is thought to be the cause of the lack of practicing physicians in rural districts.

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RAGWEED, COMMON CAUSE OF ASTHMA AND HAY FEVER, MAY PRODUCE RASH

Ragweed, common cause of asthma and hay fever in the United States, may also cause inflammation of the skin, according to three Rochester, N. Y., doctors writing in the current issue of *Occupational Medicine*, published by the American Medical Association.

The doctors, all from the Medical Department of the Eastman Kodak Company, are Benjamin J. Slater, Associate Medical Director, John L. Norris and Nathan Francis.

They state that "while ragweed is the commonest cause of asthma and hay fever in the United States, it rarely causes dermatitis, not unlike that seen after exposure to poison ivy, oak or sumac. The rash is usually distributed on the exposed surfaces of the body, such as the face, neck, forearms, hands, legs and feet, but may, like other forms of dermatitis venenata (contact dermatitis), involve the whole body. The condition is not hereditary, and, as a rule, those who get the dermatitis from the ragweed do not get hay fever or asthma."

Symptoms usually appear in August and end with the frost, corresponding with the period of pollenation of ragweed. However, the authors point out that the eruption may appear as early as May, when the ragweed plant begins to grow, and may continue well up to November, as the ragweed plant maintains its vitality up to that time.

Farmers, grain handlers and hunters are warned that contact with the dried weed and seed will produce dermatitis at any time of the year if they are sensitive. The eruption may also be continued by pyrethrum insect powder, turpentine, vegetable oils or other material which can cause dermatitis.

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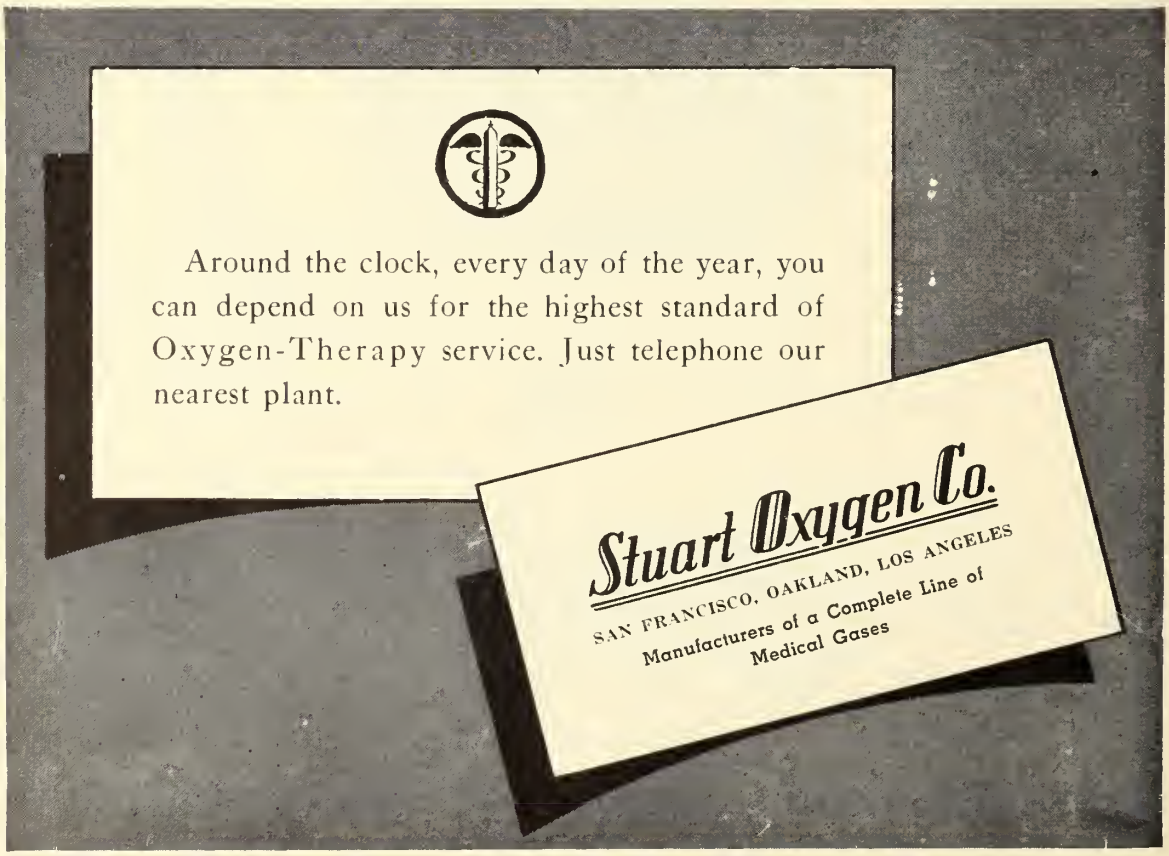
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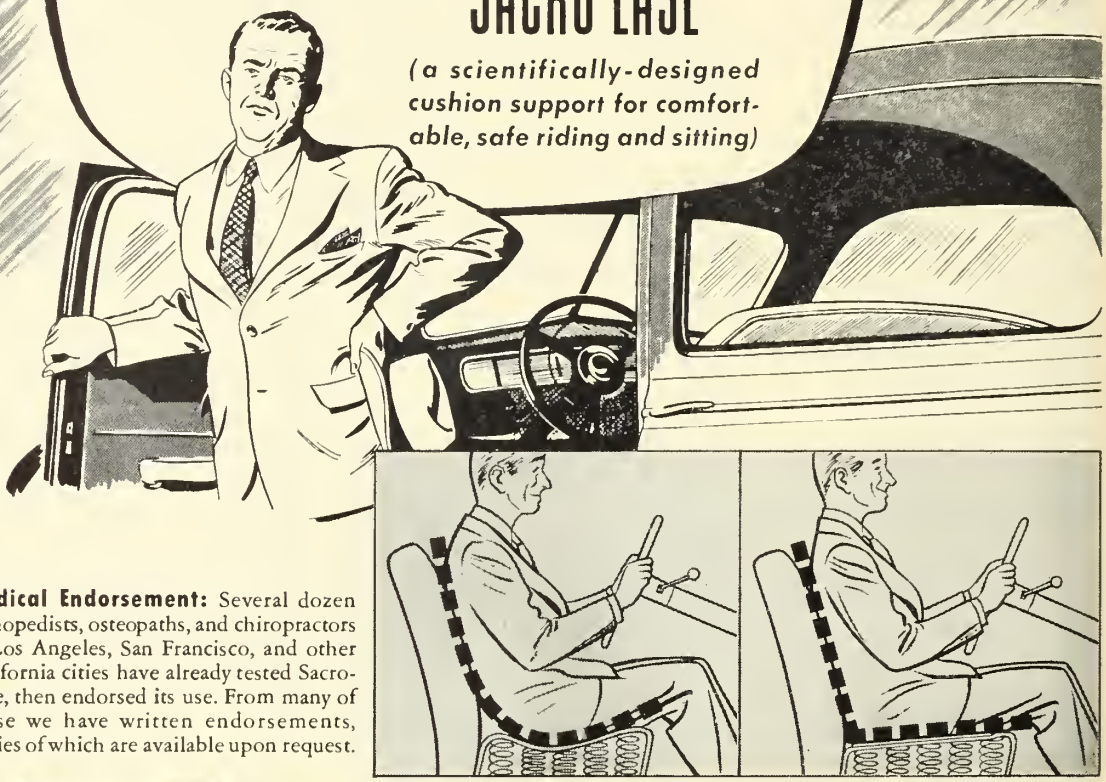
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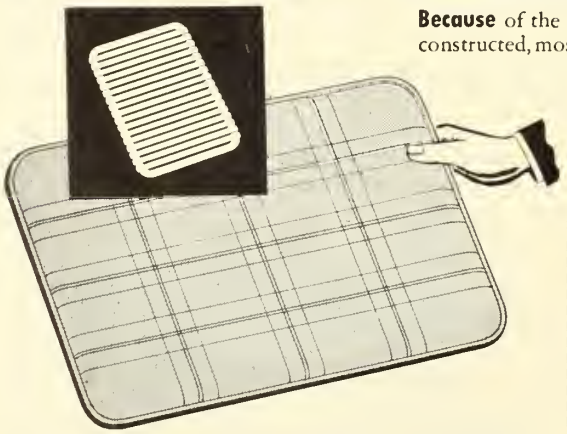
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NOISE ON GUN RANGES IMPAIRS HEARING OF ARMY INSTRUCTORS

The Army Medical Corps is trying out several new protective auditory devices after a study revealed that 50 per cent of the gunnery instructors assigned to both shotgun and 50 caliber machine gun ranges during the war suffered a definite loss of hearing from the constant noise of gunfire.

Writing in the current issue of the *Archives of Otolaryngology*, published by the American Medical Association, two army physicians state that tinnitus or ringing in the ear was the chief complaint in 50 per cent of the subjects examined and was the most annoying symptom noted.

The authors, Capt. James V. Stewart, of Buckingham Army Air Field, Fort Myers, Fla., and Lt. Col. David Woolfolk Barrow, of Lexington, Ky., studied 100 gunnery instructors averaging 25 years of age. All of them had normal hearing before they were assigned to the range.

"The minimum length of service was six weeks, the maximum 30 months and the average 10 months," the doctors write. "On the ranges, firing is almost continuous for seven and one-half hours per day five and one-half days a week. Absorbent cotton had been used universally as an ear plug and during the period covered by this survey was the only protective device employed.

"The noise level on ranges where 40 or more 50 caliber machine guns are firing is high and subjectively produces acute distress when first encountered. Men involuntarily duck, clasp their hands over their ears and have an almost uncontrollable impulse to run away when they first go on the range. It is almost as if they were struck a physical blow by a mass of sound. This first sensation passes in a few minutes, and one soon becomes adjusted to the noise. On cessation of firing after a single exposure of a few hours, there is a 'numb' feeling in the ears. One can almost hear the stillness, but auditory acuity is not diminished. Tinnitus, however, is sometimes present after a single exposure but is invariably of short duration. We have failed to see tinnitus persist even 24 hours following a single exposure."

Drs. Stewart and Barrow find, however, that after repeated exposure tinnitus can become a persistent and annoying symptom.

Of the 100 men examined, "persistent and unrelenting tinnitus was noted in 30 and intermittent tinnitus, severe enough to demand medical attention and cessation of duty on the range, was present in an additional 20."

The doctors say that when the men are reassigned, the trouble seemed to diminish, but in some the condition persisted for six months.

"The degree of hearing impairment is not readily appreciated by the person concerned," the doctors write. "When the man himself begins to notice difficulty in hearing there is but little left. Furthermore the loss is so gradual that he fails to understand what is happening to him and rarely presents himself for examination before extensive damage has occurred. To prevent this, routine examinations must be conducted."

The doctors cite the case history of a 29-year-old gunnery range captain, who was assigned to a shotgun range where he served eight hours a day six days a week for 15 months. The patient first noticed his ear trouble three months after assignment.

"The tinnitus would disappear during the night at first but within five months became continuous," the article states. "He was not aware of being deaf at that time. ease patient by concluding in this optimistic tone: "I

(Continued on Page 50)



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NOISE ON GUN RANGES IMPAIRS HEARING OF ARMY INSTRUCTORS

(Continued from Page 48)

With continued service on the range this tinnitus became more intense. The patient stated that this buzzing had awakened him while sleeping. He had used cotton wadding ear plugs continuously and tried to stay as far distant from the firing as he could and still perform his duties. Despite these precautions there was progressive damage and he was removed from the range after 15 months of service."

The doctors write that "there is a pronounced individual variation in susceptibility. In only five men with an average of eight and one-half months' exposure were there no symptoms of any kind and normal hearing. In the remaining 95, there were varying degrees of impairment. The amount of damage, however, could not be correlated to the length of exposure. The time necessary to produce symptoms and damage to hearing was likewise subject to wide individual variation. In one instructor continuous severe tinnitus and pronounced loss of hearing developed within six weeks."

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The author holds out further hope for the heart dis-

(Continued on Page 52)

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NOISE ON GUN RANGES IMPAIRS HEARING OF ARMY INSTRUCTORS

(Continued from Page 50)

feel that the average patient with a healed coronary occlusion can return to a sedentary occupation part time in about three months. Although it is debatable, because of the possibility of further occlusions, I believe it is safe to allow such patients to drive a car three months or so after their acute episode. Also if they do not have angina of effort three or four months after their original attack any mild form of exercise such as golf or swimming in warm water seems indicated, if desired. It is my feeling that too many such patients are made total invalids unnecessarily. In fact, it is my experience that after adequate collateral circulation has developed it really doesn't seem to matter what activities these persons carry on within reason from the standpoint of developing further coronary occlusions. Certainly a patient is a happier and more useful member of his community if he can lead an approximately normal life.

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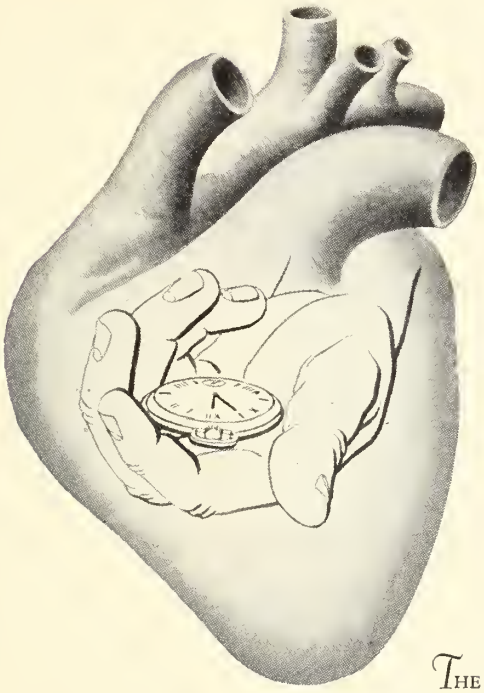
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A new drug has recently been gaining recognition as an effective agent against disease-producing bacteria which invade the skin. This chemical, obtained for the most part from oat hulls, is called Furacin, according to three Boston investigators writing in the February 1 issue of *The Journal of the American Medical Association.*

The investigators—John Godwin Downing, M.D., Millard C. Hanson, M.D., and Marion Lamb—are from the Department of Dermatology and Bacteriology, Boston City Hospital, and the Department of Dermatology, Tufts College Medical School.

Of 212 patients placed under treatment with this chemical, which is applied to the skin, 18 showed a brilliant response and 82 showed good response, while on 45 there was no follow-up.

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The authors point out that so far there has been no evidence of poisoning from absorption of the drug when it is used in large amounts over long periods. "Although the drug is capable of sensitizing abnormal skins, in our experience to date this tendency is less than that of sulfathiazole or penicillin when used for topical application," they state.

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*Feinberg, S. M.: J.A.M.A., 132: 703 (Nov. 23) 1946.

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Two new English drugs, used in a New York hospital, have proved effective in checking multiple myeloma, a malignant tumor of the bone marrow.

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Writing in the January 18 issue of *The Journal of the American Medical Association*, Isidore Snapper, M.D., from the Second Medical Service of the Mount Sinai Hospital, New York, reviews the treatment of 15 patients.

He states that "all these patients were suffering excruciating pains when the treatment was begun. Thirteen were immobilized in bed. All 15 improved considerably as far as the pain itself was concerned. Eleven could walk at the time of discharge from the hospital."

Dr. Snapper points out that the "treatment merely checks the disease and does not cure it."

This disease, usually associated with anemia, causes neuralgic pains. Later, painful swellings appear on the ribs and skull and spontaneous fractures may occur.

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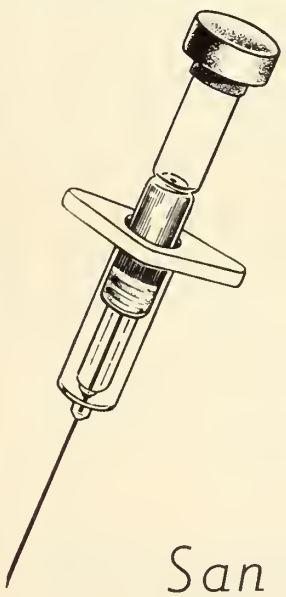
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Edgar Allan Poe (1809-1849).—Poverty, illness, misfortune were the lifelong odds against Poe. He fought these specters through three decades of prolific literary work. They undoubtedly deepened the morbidity of his writings, gloomy of nature as he was by heredity and temperament. They drove him at times to drink and the taking of drugs. But nothing brought him so close to the brink of despair and virtual insanity as the death of his adored and long-ailing child-wife, Virginia Clemm.—Warner's *Calendar of Medical History.*

Richard Porson (1759-1808).—Lord Byron, who studied under him at Cambridge, once said that he never saw Porson sober. Drinking seemed to be a monomania with him. He could sit up drinking night after night: he was known to be able to quaff, not only his share of wine but that of his convivial companions, and in a drunken fury would threaten a disputant with a poker. All this aside, Porson was perhaps the greatest Greek scholar ever known, his work marking an advance in Greek scholarship.—Warner's *Calendar of Medical History.*



In Ringworm of the Scalp, examination under ordinary light shows only the patches (left) while under Wood's light the patches and *all* isolated hairs glow with green fluorescent color (right). Thus, complete diagnosis is possible. If the lesion does not fluoresce it is not Ringworm (see "Report of the Present Epidemic"—J. A. M. A.—February 1, 1947).

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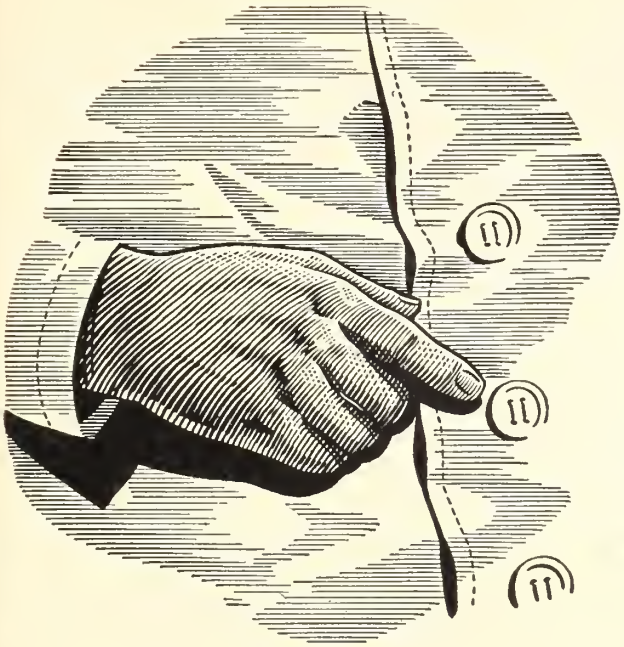


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TYPHOID FEVER INCIDENCE HIGH IN MISSISSIPPI VALLEY STATES

The incidence of typhoid fever, a disease which has been largely conquered in urban areas, is still running high in six Mississippi Valley states, Missouri, Kentucky, Tennessee, Arkansas, Mississippi and Louisiana, according to two doctors from the Charity Hospital at New Orleans.

Writing in the current issue of the *Archives of Internal Medicine*, published by the American Medical Association, the physicians—Byron M. Stuart, of Baton Rouge, La., and Roscoe L. Pullen, of Seattle—review 360 cases of typhoid seen at Charity Hospital during the six-year period from Jan. 1, 1939, through Dec. 31, 1944.

Drs. Stuart and Pullen, who are also members of the Department of Medicine, Tulane University of Louisiana School of Medicine, point out that in the United States there has been a marked decrease in typhoid fever, due largely to betterment of water supplies and improvement in sewage disposal. It now has become largely a disease of rural areas.

Distribution of the 360 patients revealed, according to the physicians, that "84 lived in New Orleans. Inadequate data failed to reveal how many of these patients had recently been in rural communities. One hundred and twenty-nine lived on farms, while 90 lived in rural communities and were engaged in farm work, fishing, hunting or trapping."

Explaining the sources of infection, the authors say that "about two-thirds of this group of patients came from rural communities. Many had inadequate screening and toilet facilities, while about one-fourth of these lived on the river or along the bayous. Many of these gave a history of drinking water of a well or a steam. Forty-nine of the group had been exposed to typhoid among members of their family, while 26 others knew of cases in their community."

Typhoid fever is a gastrointestinal disease, the causative agent, a bacillus, being eliminated with the waste matter of the infected person. Control of this disease is largely a matter of keeping sewage from draining into the water supply.

Some of the pertinent facts about the patients in this series follow:

One hundred and eleven or 33.23 per cent of the patients had rose spots.

Thirty-nine of the patients suffered a transient chill at the onset of the disease, while 69 others experienced a chill within the first few days of illness.

After the actual onset, which was frequently difficult to determine, the temperature characteristically began to rise by successive steps, usually reaching its maximum by the tenth day. The maximum temperature varied from 102 to 108.8 F. and averaged about 104.2 F.

Nervous manifestations were common in these patients. Headaches, insomnia and dizziness were relatively early symptoms, while headache, apathy, delirium, stupor and, at times, loss of consciousness were observed later in the disease.

Other outstanding symptoms noticed during the course of the disease included generalized muscular aches and pains, pain in the back and weakness.

Some evidences of involvement of the respiratory tract were present in most of the patients. A cold in the head, sore throat and manifestations of bronchitis were commonest. Cough was present in 310 patients.

Loss of appetite was present in over 90 per cent of the patients. Distaste for food became more pronounced as the disease progressed, but it was usually replaced by an increasing desire for food as the fever disappeared.

(Continued on Page 64)



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Max Bergmann may be said to have inherited the mantle of Emil Fischer, whose principal collaborator he was at the time of the latter's death in 1919. He became Director of the Kaiser Wilhelm Institut für Lederforschung and, later, Member of the Rockefeller Institute for Medical Research. In 1925 he identified the dehydropeptides, substances of physiological interest which serve as substrates for a highly specific enzyme system. His "carbobenzoxy method", announced in 1932, provided a new, elegant technique for the synthesis of peptides. This led to the proposal of a system for step-by-step degradation of polypeptides, permitting successive removal and identification of individual amino acids. His investigations on protein structure and the specificity of proteolytic enzymes fostered the development of finer, more precise methods of amino acid analysis. Bergmann's more than 300 published papers contributed brilliantly to modern protein and carbohydrate chemistry, which are part of the foundation on which medical science rests.



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TYPHOID FEVER INCIDENCE HIGH IN MISSISSIPPI VALLEY STATES

(Continued from Page 60)

Forty-six of the 360 patients died of typhoid, a mortality rate of 12.78 per cent.

The mortality rate indicates, according to the authors, that although preventive measures have produced a progressive decline in the incidence of typhoid in the United States, little progress in regard to treatment has been recorded in recent years. They say that "treatment has, therefore, been directed toward providing general care, especially adequate nursing care and proper nutrition . . . Prophylaxis, the prevention of the spread of infection to others, is also important and consists of such measures as prompt vaccination of all close associates of the patient, disposal of all excreta, care of linen and utensils and control of flies."

Christian G. Ehrenberg (1795-1876).—The part that Christian Ehrenberg played as a pathfinder in bacteriology was one of systematization. He identified, named and catalogued all the microscopic organisms—animals and plants, both living and fossil—that he could discover. His great atlas, "Die Infusionsthierchen" is a monumental work, containing his own illustrations. It did for microscopic organisms what the "Systema Naturae" of Linnaeus did for the large animals and plants.—Warner's *Claendar of Medical History.*



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NEED FOR PREVENTIVE MEASURES TO ARREST RINGWORM OF SCALP

How two cities met and overcame an epidemic of ringworm of the scalp is told by two doctors writing in the February 1 issue of *The Journal of the American Medical Association.*

The doctors—Richard J. Steves of Des Moines, Iowa, and Francis W. Lynch of St. Paul—are from the Division of Dermatology, University of Minnesota.

"An unusual opportunity presented itself to study an epidemic in the twin cities of Minneapolis and St. Paul, where every form of ringworm of the scalp was rare prior to 1943," state the authors. "In 1945 and 1946 about 747 cases were observed in Minneapolis, St. Paul and surrounding communities. Microsporon audouini was the organism responsible for all cases in St. Paul and surrounding communities, but not in Minneapolis, where nearly 20 per cent of the cases were caused by other types of fungi."

Their findings in this study are as follows:

"Of 635 children infected by M. audouini, the average age was 7.2 years, the ages varying from one to 16 years.

"Infection was found nine times as often in boys as in girls.

"The epidemic apparently began in St. Paul with the infection of a Negro family, and three per cent of the total cases were observed among Negroes. This is approximately 50 per cent greater than the proportion of Negro persons to the total population."

The disease spread with such rapidity during 1945 that for a time the epidemic threatened to get out of control in St. Paul. The authors present the following figures to illustrate the increase: On Jan. 1, 1945, there were two cases in Minneapolis and 51 in St. Paul; on Jan. 1, 1946, there were 51 cases in Minneapolis and 584 in St. Paul.

Two types of treatment were attempted. In a selected series of 486 children, 25 per cent of 298 patients were cured by removal of the hairs by hand and local applications of simple remedies, and 80 per cent of 188 patients were cured by x-ray treatment.

The Wood light is valuable in diagnosing ringworm of the scalp. In a darkened room, under this light, normal skin and hair fluoresce faintly, while hairs infected with the fungi show brilliant heads of fluorescence and scaly areas appear turquoise blue. The physicians state that the "use of the Wood light is indispensable in the presence of an epidemic. It is used in surveying schools to detect early or unrecognized cases, and it is the only satisfactory method of determining when a case has been cured."

The authors, cognizant of the present country-wide epidemic of ringworm of the scalp, sent questionnaires in January, 1946, to the health officer in at least two cities in each state and in each city with a population of over 40,000. "Replies were received from 175 of 220 inquiries," they state. "Epidemic ringworm of the scalp had appeared in 61 cities, and replies indicated that it probably was present in 27 additional cities."

Drs. Steves and Lynch point out that "in the presence of an epidemic the individual physician cannot handle the problem alone. The public health aspects of the disease far outweigh the treatment of the individual patient, and it is the duty of the school, city, county and state health departments to take adequate and early precautions to prevent spread."

They conclude with the statement that "the greatest incidence of the disease occurs in the East and Middle West. This may be due to New York City, Washington, D. C., Chicago and Detroit acting as large foci from which other communities are infected."



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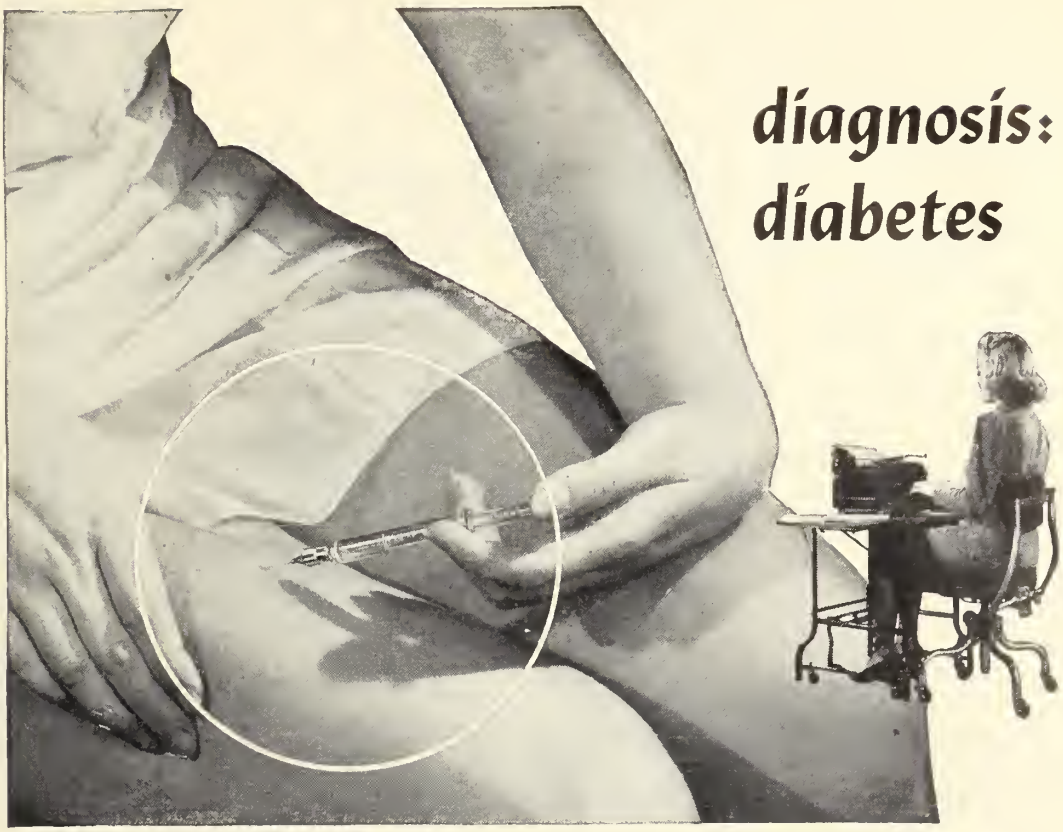
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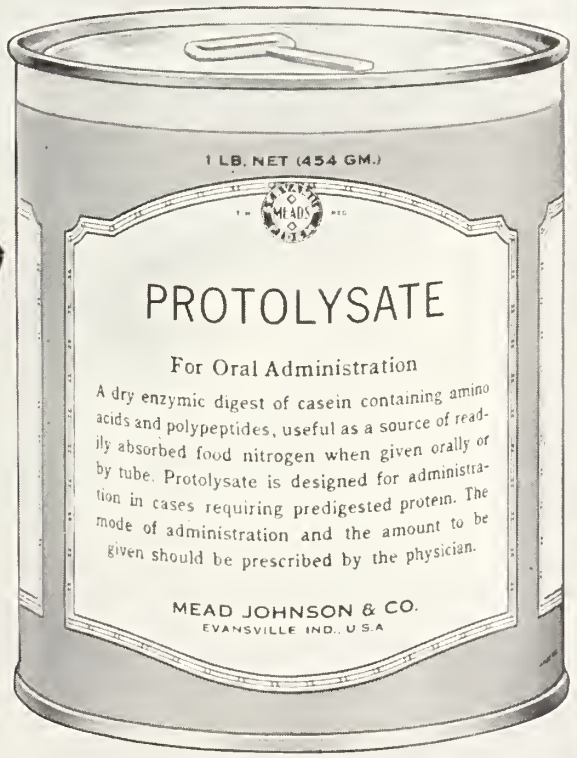
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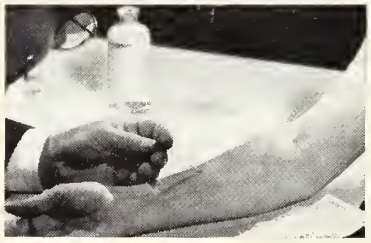
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ORIGINAL ARTICLES

MEDICINE'S CHALLENGE, S. J. McClendon, San Diego 277
THE INCREASING IMPORTANCE OF Q FEVER INFECTION
Garnett Cheney, San Francisco 280
THE TREATMENT OF MALIGNANT MELANOMA—REPORT OF 862 CASES
George T. Pack, New York, S. L. Perzik, Los Angeles, and
Isabel M. Scharnagel, New York 283
RUPTURE OF THE HEART, Walter W. Ellwood, San Leandro 287
RESPIRATORY MOLD ALLERGY—A 12 MONTHS' ATMOSPHERIC SURVEY IN SAN FRANCISCO, William C. Deamer, San Francisco, and
Herbert W. Graham, Oakland 289
USE OF SULFASUXIDINE IN RESECTION OF CARCINOMA OF THE COLON—EFFECT ON INFECTION AND MORTALITY, H. Glenn Bell, San Francisco 292
CONTROLLED EVALUATION OF GOLD THERAPY IN RHEUMATOID ARTHRITIS
Hans Waine, Frances Baker, and Stacy R. Mettier, San Francisco 295
CANCER MORTALITY IN SAN FRANCISCO, J. C. Geiger, San Francisco 297
ACUTE HEMATOGENOUS OSTEOMYELITIS TREATED WITH PENICILLIN—A CASE REPORT, Carlton C. Purviance, Vallejo, and
John L. Lovejoy, Jacksonville, Florida 302
THE PULSE IN ANCIENT CHINESE MEDICINE, Albert Fields, Los Angeles 304
MEDICAL PROGRESS: PROGRESS IN THE MANAGEMENT OF SYPHILIS
J. F. Flynn and O. Milton Stout, Los Angeles 306

EDITORIALS 311
CLINICAL-PATHOLOGICAL CONFERENCE 314
CALIFORNIA MEDICAL ASSOCIATION 316
NEWS AND NOTES 320
INFORMATION 323
LETTERS TO THE EDITOR 325
BOOK REVIEWS 326
MEDICAL JURISPRUDENCE 330
BOARD OF MEDICAL EXAMINERS Adv. page 52
ANTISPASMODICS Adv. page 10

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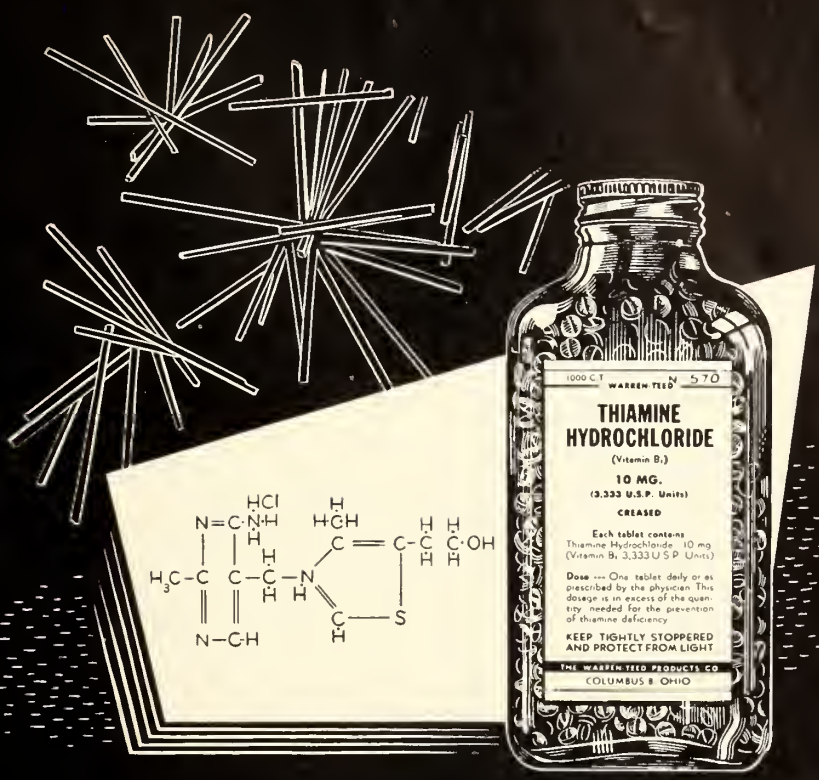
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Meeting, *Second Tuesday, San Diego Club.*

SAN FRANCISCO County Medical Society
2180 Washington Street 9
President, Anthony B. Diepenbrock, 2180 Washington Street, San Francisco 9.
Secretary, Robertson Ward, 2180 Washington Street, San Francisco 9.
Meeting, *Second Tuesday, 8:15 p. m., 2180 Washington Street, San Francisco 9.*

SAN JOAQUIN County Medical Society
President, Dora Ames Lee, 110 North San Joaquin Street, Stockton 6.
Secretary, H. D. Chope, Box 111, Stockton.
Meeting, *First Thursday, 8:15 p. m., Medico-Dental Club Rooms, Stockton.*

SAN LUIS OBISPO County Medical Society
President, H. N. Cookson, 154 Traffic Way, Arroyo Grande.
Secretary, G. D. Kelker, Cayucos.
Meeting, *Third Saturday, 7:00 p. m., Gold Dragon Cafe, San Luis Obispo.*

SAN MATEO County Medical Society
President, Stuart Lindsay, 440 Portola, San Mateo.
Secretary, Albert G. Miller, Medical Arts Building, San Mateo.
Meeting, *Third Tuesday of each month.*

SANTA BARBARA County Medical Society
President, D. H. McNamara, Cottage Hospital, Santa Barbara.
Secretary, Douglas F. McDowell, 317 W. Pueblo Street, Santa Barbara.
Meeting, *Second Monday, Cottage Hospital.*

SANTA CLARA County Medical Association
President, Joseph B. Josephson, 1541 The Alameda, San Jose 11.
Secretary, Leslie B. Magoon, 630 E. Santa Clara, San Jose 12.

SANTA CRUZ County Medical Society
President, Luther Newhall, Jr., Ocean and Broadway, Santa Cruz
Secretary, Samuel B. Randall, 84 Walnut Avenue, Santa Cruz.
Meeting, *Every second month, second Tuesday. Time and place to be announced.*

SHASTA-TRINITY County Medical Society
President, L. C. Mosher, Bieber.
Secretary, Julius M. Kehoe, Redding.
Meeting, *Second Monday.*

SISKIYOU County Medical Society
President, Richard W. Jones, 106 South Broadway, Yreka.
Secretary, F. W. Martin, Mt. Shasta.
Meeting, *Sunday on Call.*

SOLANO County Medical Society
President, H. Randall Madeley, 727 Sonoma Street, Vallejo.
Secretary, Charles H. Widenmann, 405 Georgia Street, Vallejo.
Meeting, *Second Thursday, 8:00 p. m., Casa de Vallejo; Hotel Vallejo.*

SONOMA County Medical Society
President, Wilson Stegeman, 534 B Street, Santa Rosa.
Secretary, Raimond F. Clary, 1616 Fourth Street, Santa Rosa.
Meeting, *Second Thursday.*

STANISLAUS County Medical Society
President, Andrew Van De Pol, P. O. Box 944, Modesto.
Secretary, J. Lyle Spellman, 138 McHenry Avenue, Modesto.
Meeting, *Second Friday, 7:30 p. m., Hotel Hughson.*

TEHAMA County Medical Society
President, E. R. Wilson, Red Bluff.
Secretary, R. G. Frey, Red Bluff.
Meeting, *At Call of President.*

TULARE County Medical Society
President, Frank R. Guido, Box 1094, Visalia.
Secretary, Debora Pineles, Box 349, Visalia.

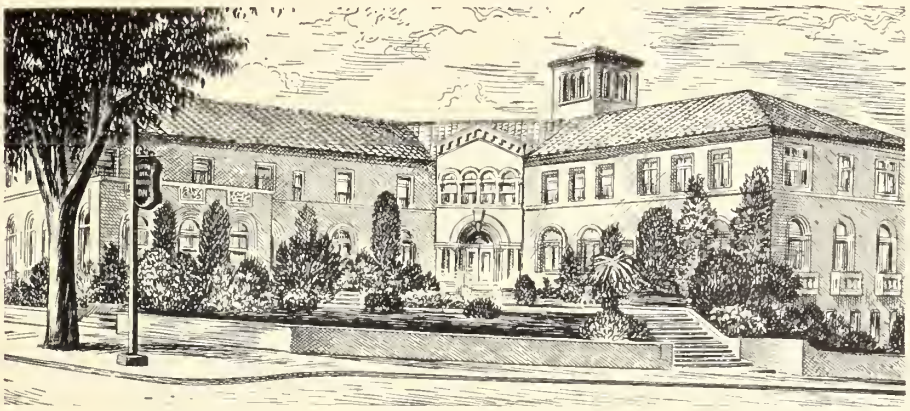
VENTURA County Medical Society
President, D. M. Clark, Foster Memorial Hospital, Ventura.
Secretary, A. A. Morrison, 34 North Ash, Ventura.

YOLO County Medical Society
President, Max Waters, Porter Building, Woodland.
Secretary, Emery Leivers, Woodland Clinic, Woodland.
Meeting, *First Wednesday.*

YUBA-SUTTER-COLUSA County Medical Society.
President, John W. Scott, Colusa.
Secretary, Leon M. Swift, Box 244, Marysville.
Meeting, *Second Wednesday.*

(For roster of C.M.A. committees and other organizations, see last month's issue.)

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Abbott Laboratories 57
Acme Breweries 42
Alexander Sanatorium, Inc., The 32
Alum Rock Sanatorium 22
American Meat Institute 37
Ames Company, Inc. 78 and 79
Ar-Ex Cosmetics, Inc. 64
Arlington Chemical Co., The 11
Ayerst, McKenna & Harrison Limited 61
Barnes-Hind Laboratories 64
Baxter, Inc., Don 26
Benjamin, M. J. 12
Bilhuber-Knoll Corp. 34
Birtcher Corporation, The 76
Borcherdt Malt Extract Company 16
Borden Company, The 45
Broemmel's Pharmaceuticals 3
Burroughs Wellcome & Co. 23 and 69
California Sanatorium, The 68
Calso Water Co. 16
Camp & Company, S. H. 41
Campbell Cereal Company 44
Classified Advertisements 10
Ciba Pharmaceutical Products, Inc. Insert 16 and 17
Commercial Solvents Corporation 27
Compton Sanitarium 34
Cook County Graduate School of Medicine 80
Crocker First National Bank 79
Cutter Laboratories 4th Cover
Denver Chemical Mfg. Co., The 63
Devereux Schools 38
Doctors Business Bureau, The 32
Durex Products, Inc. 70
French Hospital 72
Garden Grove Sanitarium 14
General Electric X-Ray Corporation 31
Greens' Eye Hospital 7
Guth, C. Rodolph 7
Haack Laboratories, Inc. 62
Hanger, Inc., J. E. 60
Harrower Laboratory, Inc., The 67
Hershey Pharmaceutical Co. 72
Hittenberger Company, C. H. 68
Holland-Rantos Company 75
Hygeia Sanatorium 68
Hynson, Westcott & Dunning, Inc. 66
Ingram Laboratories, Inc. 52
International Vitamin Corporation 48
Jenkel-Davidson Optical Co. 43
King Ambulance Company 64
Kinney & Sons, Inc., H. W. 47
Kip Corp., Ltd. 10
La Loma Feliz 17
Las Encinas Sanitarium 70
Lea & Febiger 22
Lederle Laboratories 73
Lilly and Company, Eli Insert 48
Livermore Sanitarium 46
Los Angeles Tumor Institute 12
Luziers, Inc. 74
M & R Dietetic Laboratories, Inc. 58
Mead Johnson & Company 3rd Cover
Medical Protective Company, The 35
Merck & Co., Inc. 13
Nestle's Milk Products, Inc. 30
New York Polyclinic Medical School, The 46
Noble Placement Agency 16
Officers of the California Medical Association 2, 4, and 6
Ortho Pharmaceutical Corporation 82
Park Sanitarium 38
Parke, Davis & Company 2nd cover: 1, 25, 54 and 55
Pasadena Research Laboratories, Inc. 17
Philip Morris & Co., Ltd., Inc. 21
Photovolt Corp. 80
Physicians Casualty Association 60
Physicians Formula Cosmetics, Inc. 17
Pottenger Sanatorium and Clinic, The 56
Procredit Company 42
Raleigh Hills Sanitarium, Inc. 18
Rexall Drug Company 36
Reynolds Tobacco Co., R. J. 71
Richardson Mineral Springs 20
Riggs Optical Co. 28
Saint Francis Hospital 28
St. Luke's Hospital 34
Sandoz Chemical Works, Inc. 56
San Francisco Surgical Co. 3
Schenley Laboratories, Inc. 9
Schering Corporation 33
Schmid, Inc., Julius 77
Searle & Co., G. D. 49
Servex, Inc. 80
Shadel Sanitarium 65
Sharp & Dohme 39

(Continued on Page 32)

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WANTED—(a) EENT foreign position. Guarantee and percentage. Should make $1500 month. Permanent, family may accompany. (b) General practitioner with surgery foreign contract. From $8000 plus complete maintenance. (c) General practitioner, young; group association in Central California. $500 to start. (d) General practitioners, locum tenens, summer months, Alaska; $500 plus maintenance. (e) Internist, certified American Board, group association, San Francisco. Salary plus percentage. (f) Obstetrician, Diplomate or eligible; group association; Southern California. (g) Ophthalmologist with some knowledge otolaryngology associate with doctor, Northern California. (h) Pediatrician, Diplomate, group association. gulf coast, Texas. Guarantee and percentage. (i) Pediatrician completed two years residencies for association with Board Member. Northern California. (j) Public Health physician, Central California. $600 plus expenses. (k) Radiologist, eligihle or certified Diplomate. Southwest hospital. Salary open plus maintenance. (l) Resident physician, tuberculosis sanatorium. $250 plus complete family maintenance. Near California resort area. For further information write Hedwig Falkwell, Director, Pacific Coast Medical Bureau Agency, Inc., 703 Market St., San Francisco 3.

BEVERLY HILLS, California. Physicians office. Built in files and instrument cabinets. Beautifully furnished extra large reception room with receptionist. Beverly Hills Professional Building. Unusually good transportation. Approximately 1000 square feet partitioned, and will nicely accomodate two physicians. Complete X-Ray lahoratory in building. Write W. E. Schwartz, D.D.S., 105 N San Vicente Blvd., Beverly Hills.

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(Continued on Page 32)

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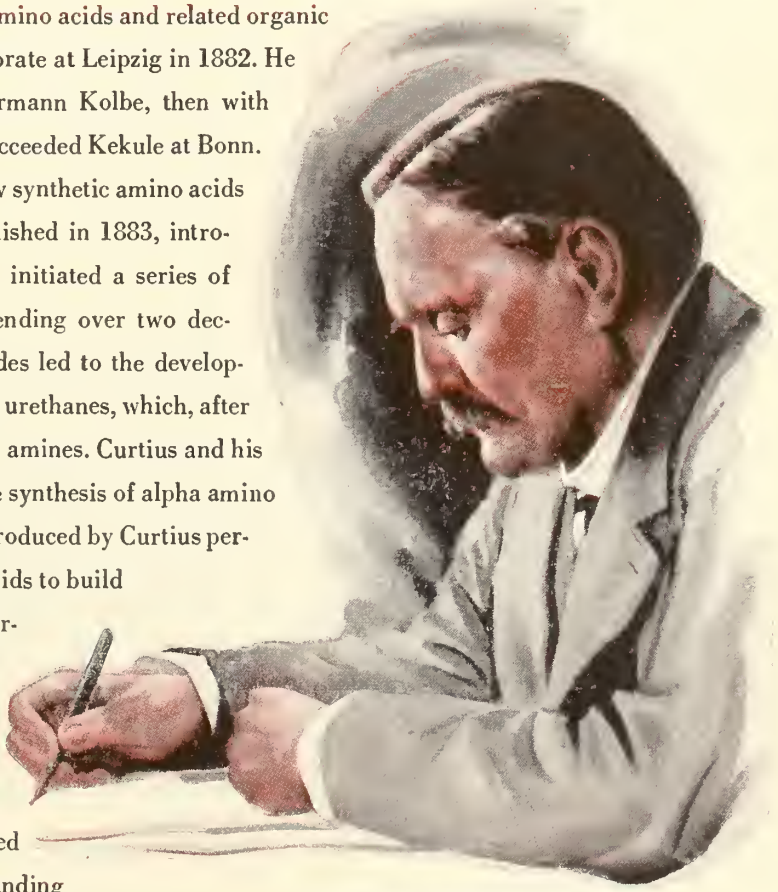
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COUNTY SOCIETIES

CHANGES IN MEMBERSHIP

New Members (179)

Alameda County (14)

Bowles, Frank H., Jr., *Oakland*
Goetz, Franz R., *Oakland*
Goggio, Alfred E., *Berkeley*
Howell, Homer P., *Oakland*
Kirksey, Morris M., *Livermore*
Lewis, Leon, *Berkeley*
Mitchell, Gertrude M., *Oakland*
Muller, Harold P., *Berkeley*
Norcross, Nathan G., *Oakland*
Owyang, Edwin, *San Leandro*
Smith, Samuel Warren, *Berkeley*
Thomas, Robert L., *Oakland*
Vasko, John R., *Oakland*
Wolfe, Alfred M., *Oakland*

Butte-Glenn County (4)

Cheek, David B., *Chico*
Chernow, Marvin, *Chico*
Colm, C. Leland, *Chico*
Newman, Harold, *Chico*

Contra Costa County (3)

Bigger, Ralph W., *Walnut Creek*
Pederson, L. A., *Richmond*
Rea, Walter J., *Martinez*

Fresno County (2)

Rohlfing, Walter A., *Fresno*
Smith, W. Jewell, *Fresno*

Humboldt County (3)

Goble, Garvin, *Fortuna*
Jarvis, Shiras M., *Eureka*
Poska, T. A., *Eureka*

Kern County (4)

Grove, Howard, *Bakersfield*
Lambeth, George S., *Bakersfield*
Sanden, A. O., *McKittrick*
Yeisley, C. J., *Bakersfield*

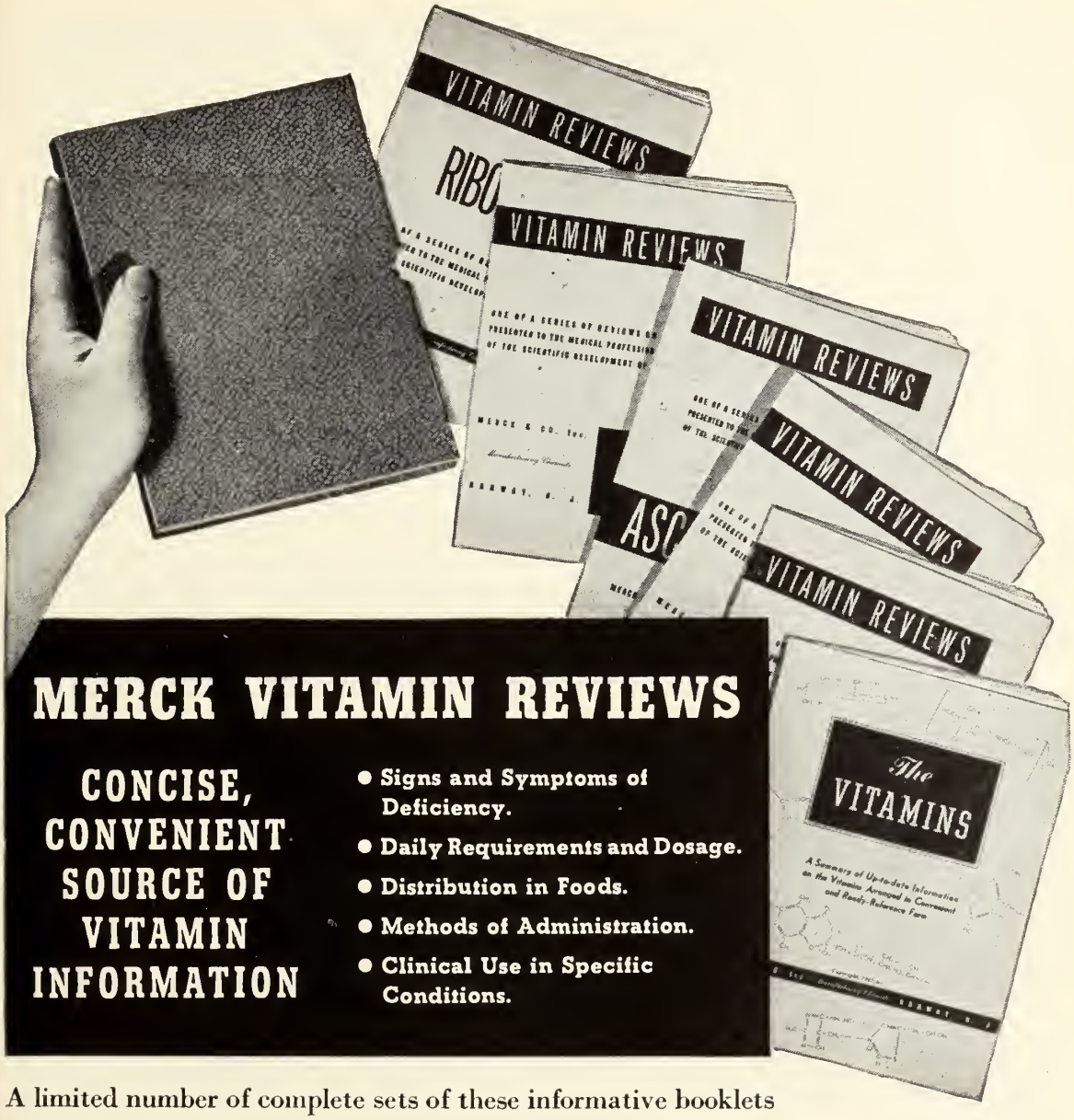
Kings County (1)

Jacob, Harold G., *Corcoran*

Los Angeles County (27)

Arcadi, Vittorio C., *Whittier*
Cary, Raymond J., *Long Beach*
Cromwell, James O., *Los Angeles*
Farr, W. Wesley, *El Segundo*
Hallsted, Alverta M., *South Gate*
Hein, Richard James, *Los Angeles*
Hodel, George Hill, *Los Angeles*
Howell, Jennie M., *Los Angeles*
Gilbert, Roy O., *Sherman Oaks*
Hutner, Laurence M., *Beverly Hills*
Ingham, Harrington V., *Los Angeles*
Ingle, Vernon A., *Montebello*
Kieffer, John P., *Los Angeles*
Madden, Earl E., *Redondo Beach*
Madoff, Irving, *Los Angeles*
Mudry, Joseph, *San Pedro*
Mueller, Rudolph R., *Los Angeles*
Nierenberg, Harry N., *Beverly Hills*
Petersen, Arnold L., *Lynwood*
Polmeteer, F. E., *Long Beach*
Reina, Solomon de la, *Manhattan Beach*
Rome, Sol., *Los Angeles*

(Continued on Page 16)



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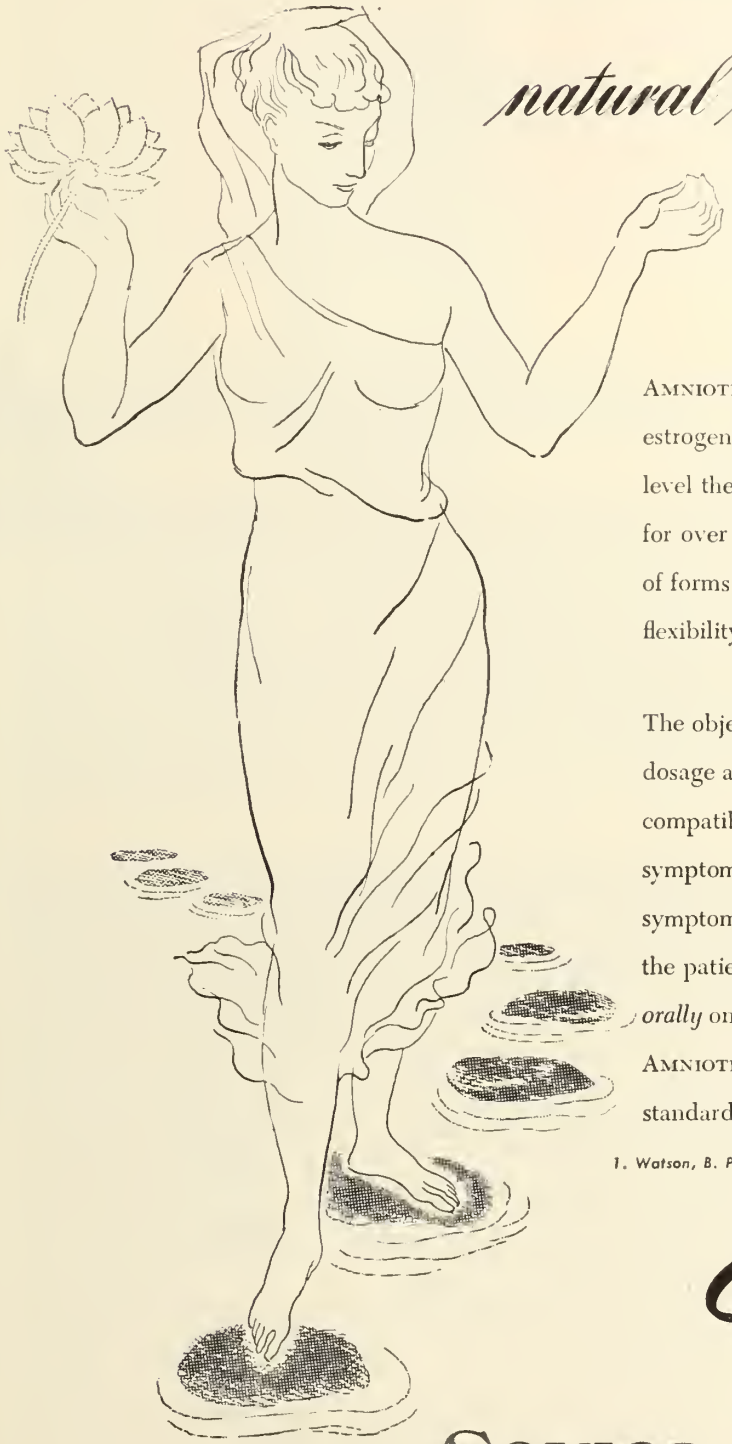
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1. Watson, B. P.: J. Clin. Endocrinology 4:571 (Dec.) 1944.

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COUNTY SOCIETIES CHANGES IN MEMBERSHIP

(Continued from Page 12)

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Schreiber, Louis W., *Beverly Hills*
Sobin, David J., *Hollywood*
Stearns, A. L., *North Hollywood*
Todd, Malcolm C., *Long Beach*

Marin County (2)

Culmer, John W., *San Rafael*
Hurlbut, J. Lyman, *Larkspur*

Mendocino-Lake County (2)

Massengill, James B., *Ukiah*
Siders, R. C., *Fort Bragg*

Monterey County (3)

Ball, Wendell L., *Pacific Grove*
Hall, Gordon, *Salinas*
Husser, Horace F., *Salinas*

Napa County (5)

Ashley, R. C. *Napa*
Berendsen, R. G., *Imola*
Douglas, Earl W., *Imola*
Priest, Ethel Humphreys, *Napa*
Weir, Irvin N., *St. Helena*

Orange County (7)

Coomber, Ralph B., *Santa Ana*
Dameron, Milton H., *Anaheim*
Durm, Thomas I., *Buena Park*
Gardner, William C., *Santa Ana*

(Continued on Page 17)



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*Feinberg, S. M.: J.A.M.A., 132: 702 (Nov. 23) 1946.

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CHANGES IN MEMBERSHIP

(Continued from Page 16)

Merryman, George H., Jr., *Santa Ana*
Miller, John E., *Anaheim*
Roberts, B. D., *Anaheim*

Placer-Nevada-Sierra County (2)

Angella, Carl, *Roseville*
Ballou, John M., *Grass Valley*

San Bernardino County (16)

Abbott, Arnold W., *Ontario*
Adams, Joel E., *San Bernardino*
Ballard, Ross L., *Needles*
Benjamin, E. L., *San Bernardino*
Bonar, Barnet E., *Trona*
Florin, Alvin C., *San Bernardino*
Gutekunst, F. W., *San Bernardino*
Hill, Howard A., *Redlands*
Honor, Herbert C., *Loma Linda*
Loeb, Edward A., *Fontana*
Matthews, Norman E. W., *Loma Linda*
Milligan, Bruce W., *Needles*
Orr, Horace D., *Victorville*
Snow, Virgin C., *Fontana*
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San Diego County (21)

Bethard, W. F., *Coronado*

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Doemeny, E. P., *San Diego*
Findeisen, William Ernest, *Coronado*
Fisher, Harold L., *Mission Beach*
Franklin, Glenn C., *San Diego*
Graves, Clifford L., *San Diego*
Hartley, George, Jr., *San Diego*
Hjartarson, G. D., *San Diego*
Hyde, C. R., *La Jolla*
McGowan, J. P., *La Jolla*
Pace, J. Blair, *Carlsbad*
Pickering, P. P., *San Diego*
Randolph, C. E., *El Cajon*
Roskos, Andrew T., *San Diego*
Sauer, W. Nicholas, *San Diego*
Singer, David, *San Diego*
Smollar, Leo, *San Diego*
Stewart, M. J., *San Diego*
Strayer, Webster, *San Diego*
Weigle, Edward H., *San Diego*

San Francisco County (24)

Breslow, Lester, *San Francisco*
Carlsmith, Margaret E., *San Francisco*
Divanovich, David, *San Francisco*
Evans, Robert S., *San Francisco*
Fasal, Elfriede, *San Francisco*
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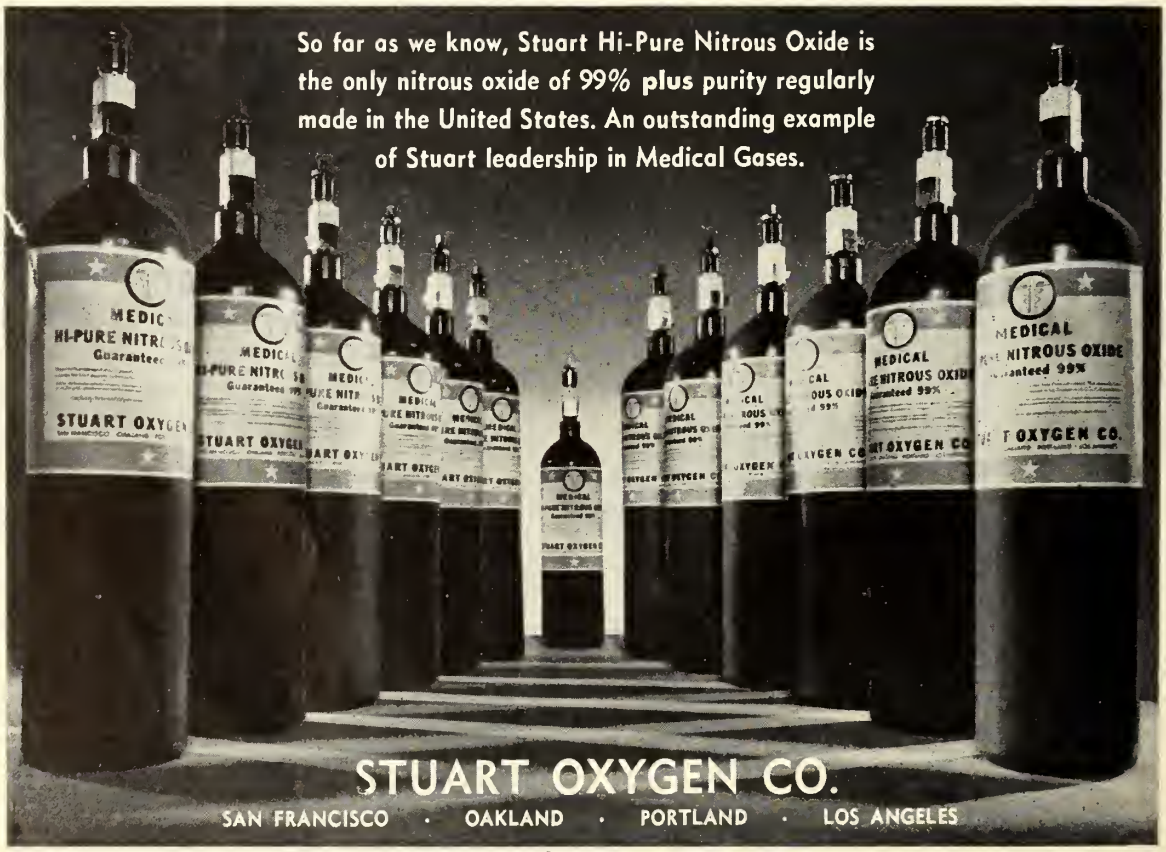
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Lofgren, Robert C., *San Francisco*
Merrill, Bruce R., *San Francisco*
Misrack, Maury L., *San Francisco*
Scarlett, Samuel L., *San Francisco*
Sherman, Julius, *San Francisco*
Siegel, Arthur, *San Francisco*
Stuart, Margaret Moore, *San Francisco*
Thomas, William McKinley, *San Francisco*
Viguie, George C., *San Francisco*
Vollert, Edward F., *San Francisco*
Welke, Elton G., *San Francisco*
Wooten, Betsy G., *San Francisco*

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Cossentine, Robert E., *Stockton*
Cove, Arthur M., *Stockton*
Gianelli, Virgil, *Stockton*
Hefferman, James J., *Stockton*
Mayo, John F., *Lodi*
Plageman, William H., *Stockton*

San Luis Obispo County (2)

Bearg, Philip A., *San Luis Obispo*
Tepper, Helen, *San Luis Obispo*

San Mateo County (3)

Flanders, Jackson, *Redwood City*

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Wanless, Loren E., *San Mateo*

Santa Barbara County (3)

Allen, William H., *Santa Barbara*
Caldwell, David M., *Santa Barbara*
Lambert, Richard, *Santa Barbara*

Santa Clara County (5)

Anderson, John L., *Mountain View*
McElligott, E. W., *San Jose*
McElmurry, N. K., *San Jose*
Mott, John M., *Campbell*
Sears, William Norman, *Palo Alto*

Santa Cruz County (3)

Dixon, H. R., Jr., *Watsonville*
Nittler, Alan H., *Santa Cruz*
Steele, Ashby, *Santa Cruz*

Solano County (3)

Gibbons, R. Matthew, *Vallejo*
Lewis, W. B., *Vallejo*
Thelin, H. M., *Vacaville*

Sonoma County (10)

Barbour, Benjamin Rogers, *Santa Rosa*
Clary, David T., *Guerneville*
Dyer, Harold L., *Santa Rosa*
Johnston, Russell C., *Santa Rosa*
Kenney, John M., *Santa Rosa*
Levinson, Herman, *Santa Rosa*
Mikita, Michael M., *Sonoma*
Mohrman, John J., *Petaluma*
Kroger, O. C., *Healdsburg*
Orsborn, Ernest V., *Santa Rosa*

Stanislaus County (1)

Nachtman, Howard F., *Modesto*

Tehama County (1)

Thorpe, H. Harper, *Red Bluff*

Tulare County (2)

Raymond, J. R., *Dinuba*
Roessler, B., *Visalia*

Transfers (25)

Brink, H. E., from *Sonoma County* to *Santa Clara County*

Daniels, Albert C., from *Marin County* to *San Francisco County*

Eichwald, Max, from *San Francisco County* to *Butte-Glenn County*

Grayson, Charles, from *San Francisco County* to *Sacramento County*

Hayden, Charles T., from *San Francisco County* to *Alameda County*

Hoag, Carl L., from *San Francisco County* to *San Mateo County*

Johnson, Karl, from *Kings County* to *Kern County*

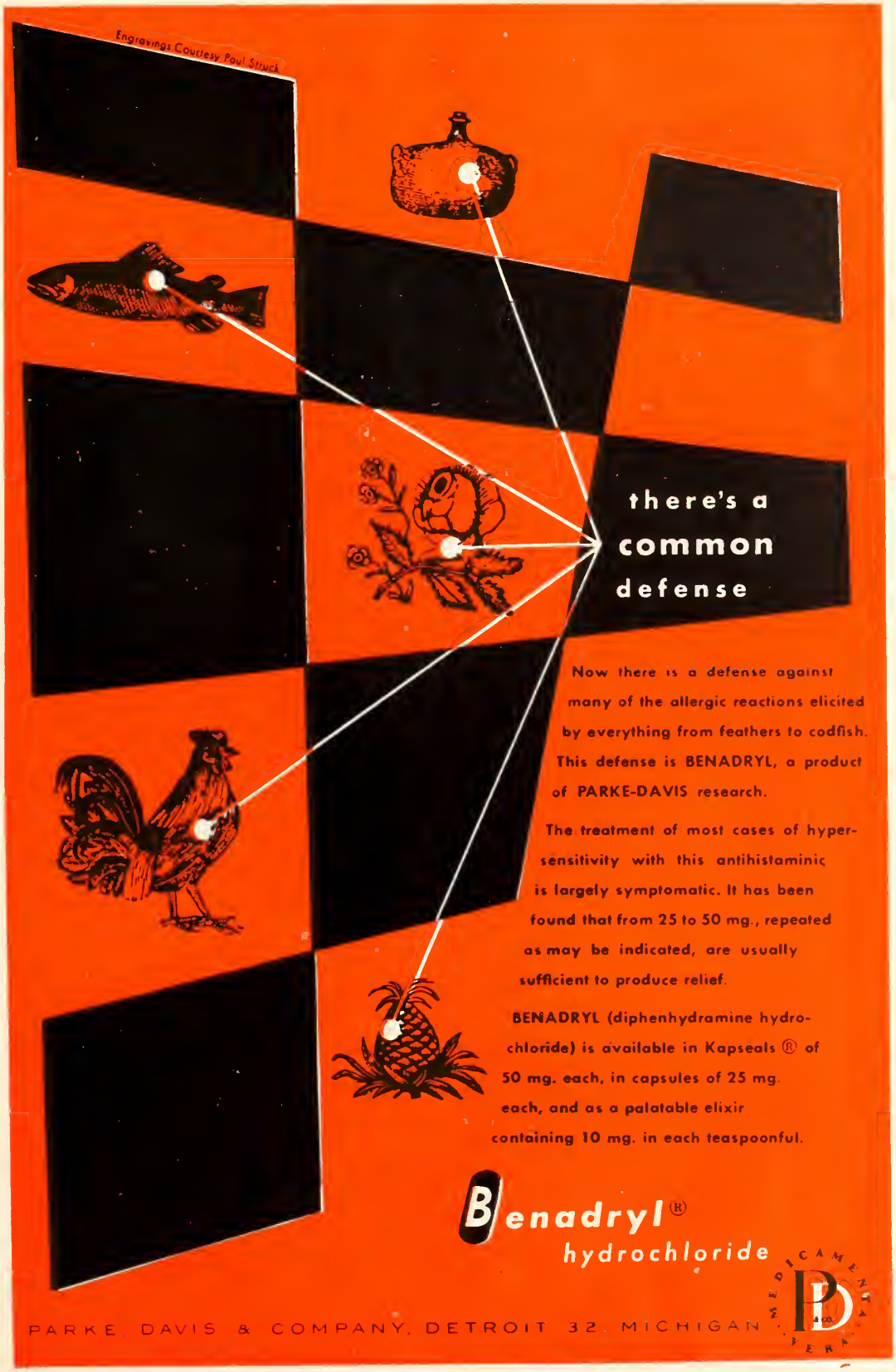
Kelley, Edwin Hal, from *San Diego County* to *Placer-Nevada-Sierra County*

McGowan, Donald O., from *Los Angeles County* to *Sacramento County*

Needles, Johhn W., from *Santa Barbara County* to *Los Angeles County*

Nickels, Thomas T., from *San Francisco County to Alameda County*

(Continued on Page 28)

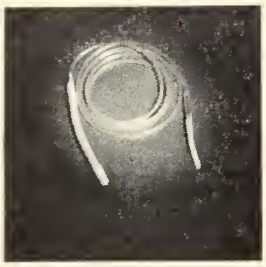

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Pierce, Richard K., from *San Francisco County* to *San Bernardino County*

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Sears, Adrian R. M., from *San Francisco County* to *Butte-Glenn County*

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Stocker, Howard, from *Los Angeles County* to *Santa Barbara County*

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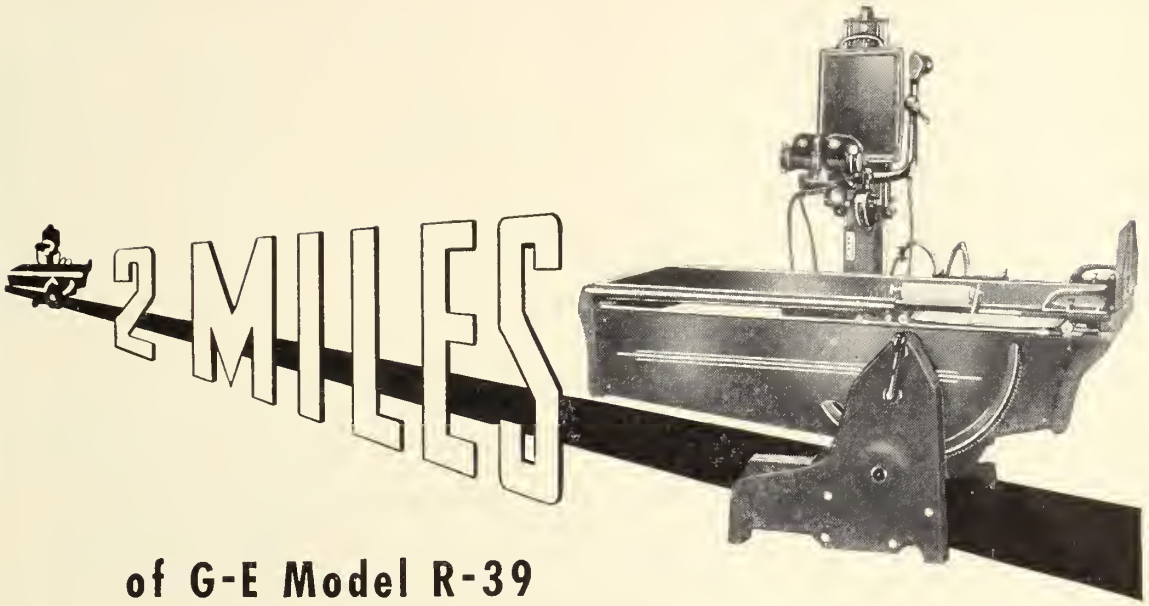
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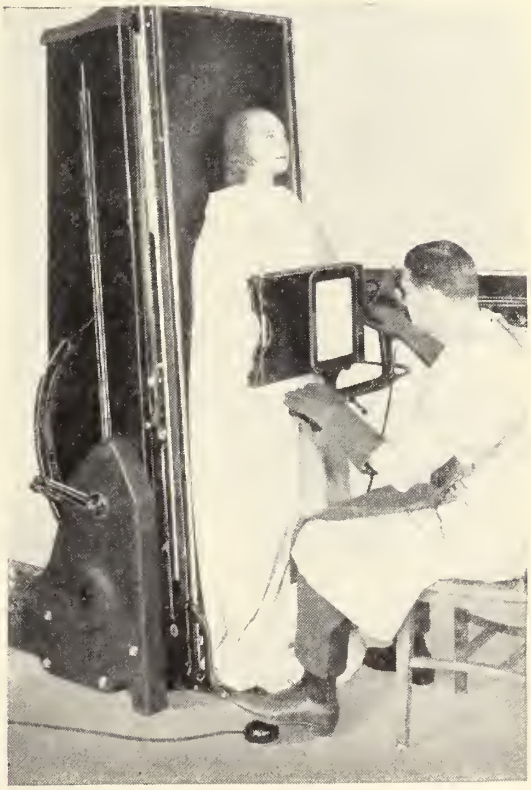
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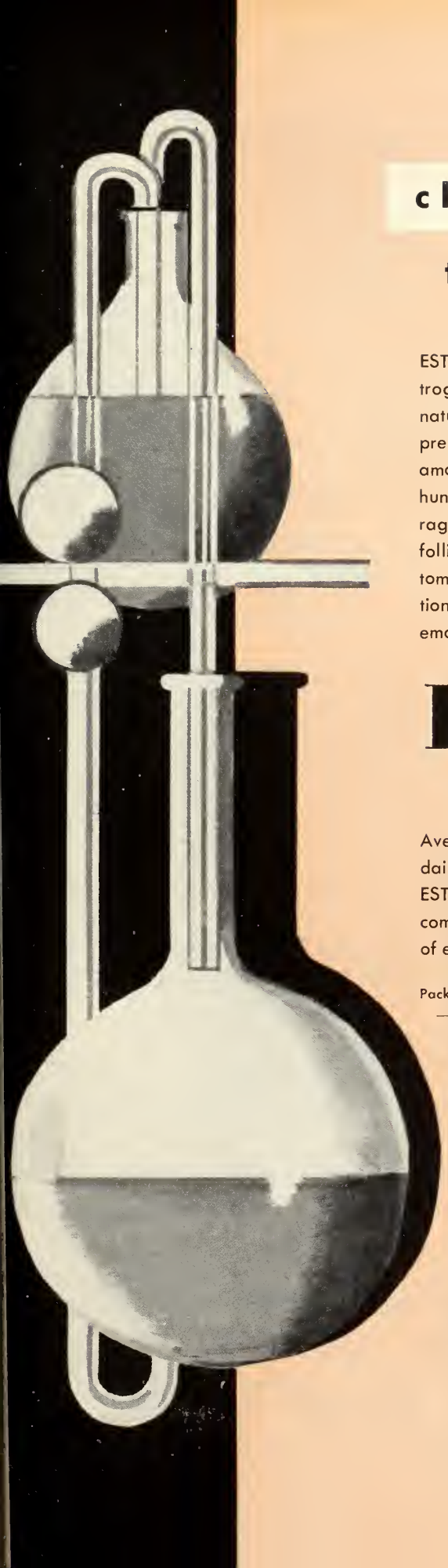
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1. Bickers, W.: Am. J. Obst. & Gynec. 51:100, 1946.

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HEART DISEASE STILL LEADS AS CAUSE OF DEATH AMONG DOCTORS

Death claimed approximately 3,558 physicians during 1946 as compared with 4,015 the previous year, according to the January 11 issue of *The Journal of the American Medical Association.*

On the basis of an analysis of 3,358 obituaries published in *The Journal* during the year, it was found that the average age at death was 66.1 as compared with 65.3 in 1945. The majority of the physicians—584—died between the ages of 70 and 74, the same age group that was dominant in 1945.

Heart disease remains the leading cause of death among physicians. Coronary thrombosis and occlusion accounted for 738 deaths (655 in 1945), 283 occurring between the ages 60 and 69. Cerebral hemorrhage, thrombosis and embolism accounted for 404 deaths; cancer and tumors were responsible for 352 deaths and pneumonia for 199. Tuberculosis caused 31 deaths, asthma 10, bronchitis and pleurisy five, and other diseases of the resporatory system 31.

The Journal finds significant the total of 55 suicides as compared with the 25 recorded for 1945. Twenty-four were the result of bullet wounds, nine of drugs and five each of cut arteries and poison. There were 130 accidental deaths, 55 of which involved automobiles.

One automobile accident occurred in a collision with a train and one with a street car. Four deaths were attributed to x-ray accidents and complications. Of the unusual accidents one physician was killed by a bolt of lightning while playing golf, one died of injuries received when he fell under the wheels of a mule drawn wagon, one when a tractor he was driving overturned and one when

(Continued on Page 38)

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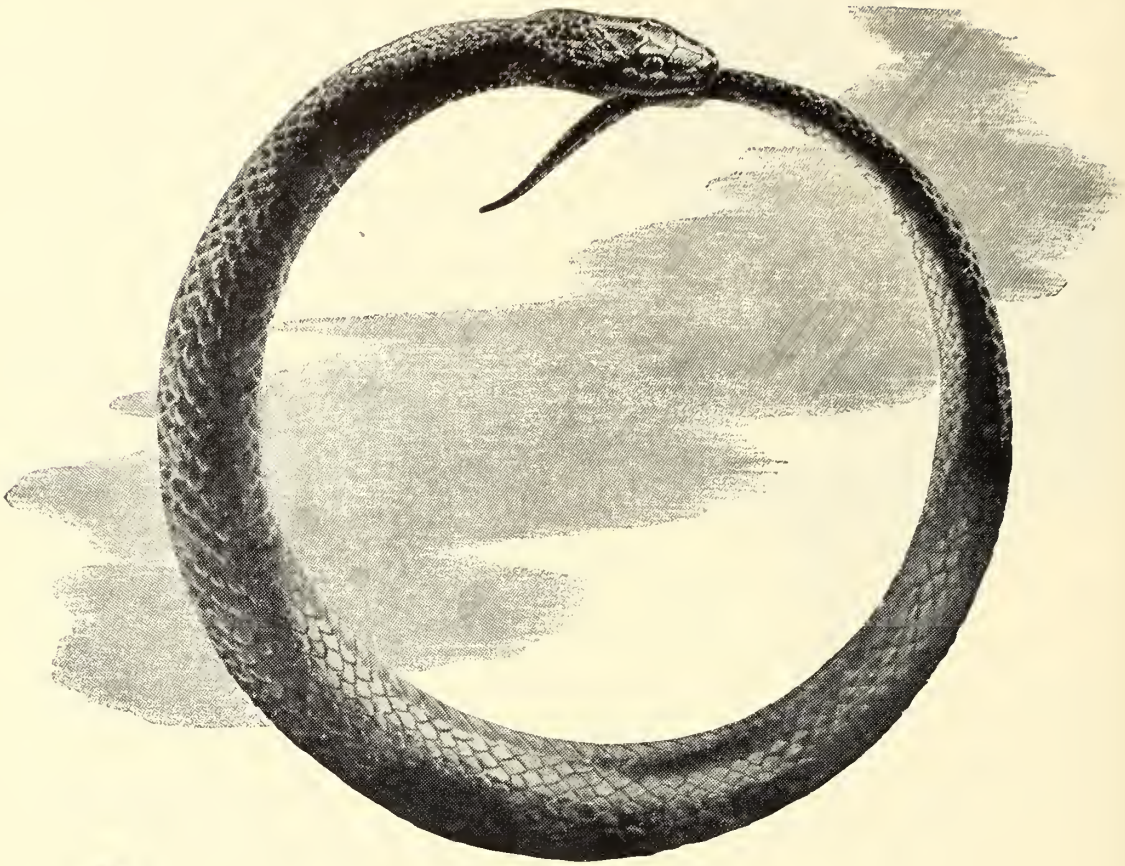
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It has been shown experimentally[1] when hydrolysates of protein are injected at two different rates (1.0 and 1.5 mg. of nitrogen per Kg. of body weight per minute), the more rapid injection rate results in a higher excretion of both free amino acids and peptides. The authors ventured that even in the presence of a definite demand for protein replenishment, nitrogen excretion is mainly controlled by the kidney threshold.

In a recent survey, Ravdin[2] stated that "When oral feeding is used, whole foodstuffs should be given. There is no beneficence in feeding protein hydrolysates unless there is evidence of faulty digestion. Feeding of mixtures of polypeptides and amino acids may result in an absorption rate of amino acids which is more rapid than can be resynthesized by the liver, especially when the function of this organ is not normal."

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1. Editorial: J.Am.Dietet.A., *22*:1063 (Dec.) 1946.
2. Ravdin, I.S.: Some Problems of Protein Deficiency, Connecticut M.J., *11*:7 (Jan.) 1947.

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HEART DISEASE STILL LEADS AS CAUSE OF DEATH AMONG DOCTORS

(Continued from Page 34)

a broken power cable wire struck him over the head; one died in a Chicago hotel fire.

Among the decedents were 274 who had been teachers in medical schools, of whom 122 had reached professorial status. There were seven deans, one president of a high school, one vice president of a medical school, one teacher in a public school and 122 membesr of education boards. One hundred and sixty-nine had been health officers, 108 members of boards of health, 67 coroners, 51 mayors, 31 authors, 29 members of medical examining boards, 27 bank presidents, 27 legislators, 26 pharmacists, 16 editors, 12 missionaries, eight dentists, seven postmasters, four lawyers and three interns.

Decedents included a vice president of the American Medical Association, one charter member of a council, four chairmen of councils and 13 section officers. Thirty-four had been members of the House of Delegates and one Speaker of the House. There were 35 presidents of state medical societies, four secretaries of state societies and 216 who had been presidents of county medical societies.

The 3,358 *Journal* obituaries included 40 physicians who were killed in action during World War II and 128 who died while in military service. A number of those who were killed in action had first been reported missing in action. Eight physicians lost their lives in the Asiatic area, seven in the Philippine Islands, six in the China Sea, five in Germany, five in the Pacific area, two in Italy, two in France and one each in Formosa, Luzon, North African area, Okinawa and Tinian. Nine were reported as prisoners of war.

Of the 128 physicians who died while in military service,

(Continued on Page 42)



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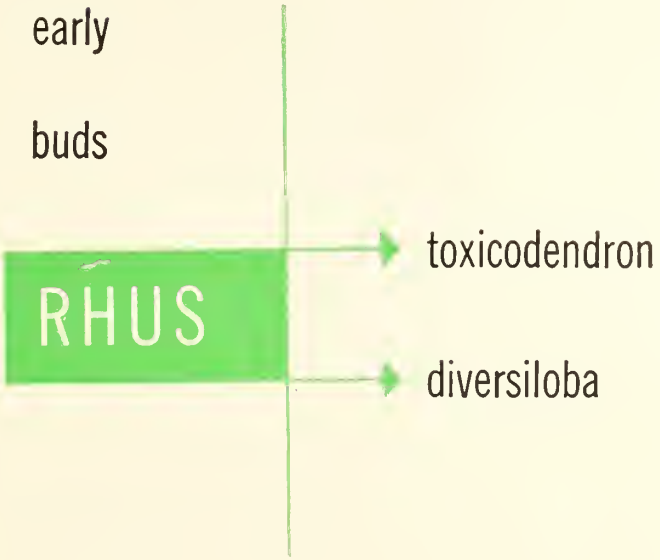
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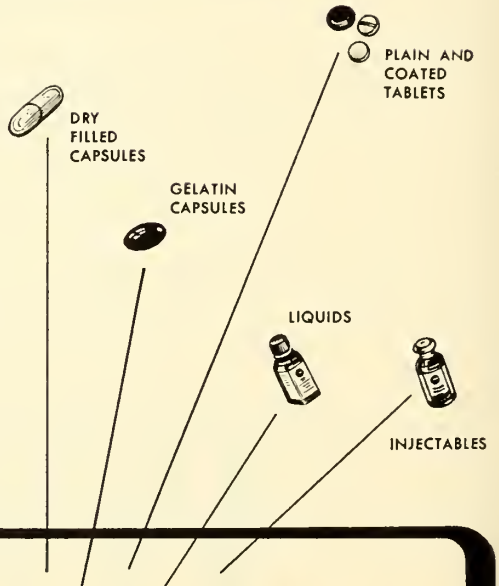
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FIGURE 1 — Patient — thin type of build with beginning faulty body mechanics. The Camp adjustment provides a more stable pelvis, allowing patient to "draw in" the abdominal muscles thus gradually acquiring a gentle lumbar curve.

FIGURE 2 — Patient — intermediate type of build. Strain of lumbosacral joint predisposes to other strains. For protection of the joints in the lumbar region from recurrent strain and also as an aid in relieving the pain of acute conditions, Camp lumbosacral supports have proved effective.

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HEART DISEASE STILL LEADS AS CAUSE OF DEATH AMONG DOCTORS

(Continued from Page 38)

coronary thrombosis caused 19 of the 29 deaths attributed to various forms of heart disease. Airplane accidents caused 16 deaths and automobile accidents nine. Cancer was responsible for 10 deaths, three of which were brain tumors. The remaining deaths were from miscellaneous causes.

The 40 deaths classified as killed in action give an average age of 35.2, while the average for the 128 who died while in military service is 42.8. Combining the two, an average of 37.7 is recorded.

Since the outbreak of World War II on Dec. 7, 1941, *The Journal* has recorded the deaths of 257 physicians who were killed in action and 501 who died while in military service. Reports still being received by *The Journal* indicate that the aggregate total of 758 military deaths among physicians will be greatly augmented when the complete statistics are made available through official military channels.

Napoleon Bonaparte (1769-1821).—Largely mythical is the "iron health" of Napoleon; it was his iron will that surmounted physical defects. Certain it is that Napoleon since early childhood had suffered from gastric disorders, and it is said that "gastric spasm" accounted for his hesitancy to attack at a crucial moment during the battle of Leipzig. Physical disability likewise may explain his vacillation at the fateful battle of Waterloo. It is generally agreed that Napoleon died of cancer of the stomach.—Warner's *Calendar of Medical History.*

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Pneumonia, following injury to the chest, can be prevented with large doses of penicillin or sulfadiazine, according to Edward Phillips, M.D., of Oakland, Calif.

Writing in the January 18 issue of *The Journal of the American Medical Association*, Dr. Phillips presents his observations on 73 patients treated at Permanente Foundation Hospital for pneumonia following injury to the chest.

Of these 73 patients, 43 had fractured ribs, one had a fractured shoulder blade and one had a fractured breast bone.

The author cites two investigators who demonstrated by animal experimentation how a blow to the chest, with or without fracture of the ribs, can produce injury to the lungs. The blow stimulates the vagus nerve, which extends from the cranium to the lungs, to contract the bronchial tubes which results in a partial collapse of the lung. This collapse area becomes infected because it lacks aeration.

Injections of atropine into the veins, which paralyzes the terminal fibers of the vagus nerve, will prevent or minimize the chances of collapse and infection following injury to the chest, states the author. Large doses of penicillin and sulfadiazine will sterilize the lung area.

Additional facts regarding the 73 patients follow:

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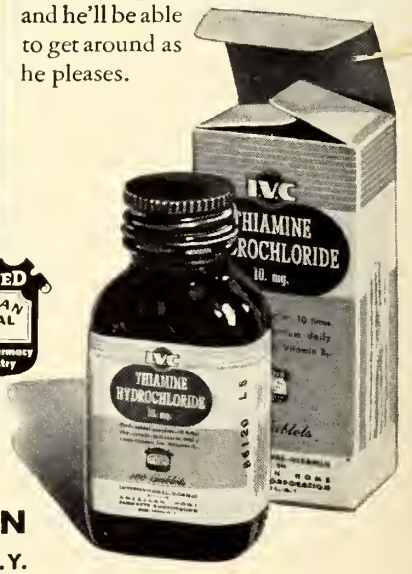
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If you were to take this rat, spin him by the tail and drop him he would go 'round and 'round. He has polyneuritis. Notice his peculiar hunched-up position and the manner in which his hind leg is splayed out. He's having a tough time co-ordinating his movements. We fed him on a diet deficient in Thiamine Hydrochloride so that, now, we can change his rations and determine the correct amounts of this substance in IVC's vitamin products.



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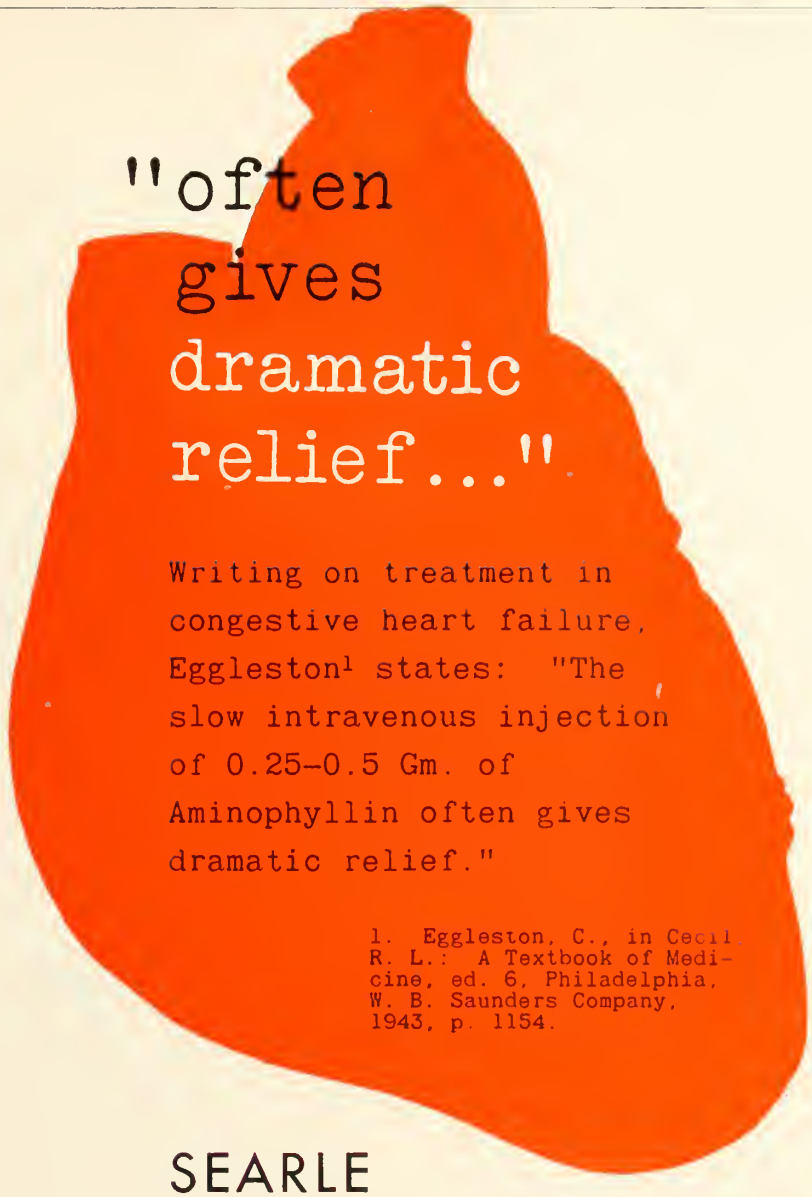
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1. Eggleston, C., in Cecil, R. L.: A Textbook of Medicine, ed. 6, Philadelphia, W. B. Saunders Company, 1943, p. 1154.

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BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA

By Frederick N. Scatena, M.D.
Secretary-Treasurer

Board Proceedings

The following changes were made in the status of licentiates of the Board of Medical Examiners at the meeting held March 10 to 13, 1947, at the Mayfair Hotel, Los Angeles.

Frederick Sheets Lorenz, M.D.—Found guilty of unprofessional conduct as defined in Section 2383 of the Business and Professions Code; License revoked. Order of revocation stayed and suspended for five years, and he was placed on probation with specified terms for said period of five years.

David Andrew Stevens, M.D.—Found guilty of unprofessional conduct as defined in Section 2383 of the Business and Professions Code; License revoked.

Leonard Dexter Wood, M.D.—Found guilty of unprofessional conduct in that he violated the provisions of Section 2411 of the Business and Professions Code: License suspended for one year and probation for ten years without narcotics.

Jean Nazareth Andrews, M.D.—License restored; Dr. Andrews was placed on probation for a period of five years without narcotics.

Wendell William White, M.D.—License restored; Dr. White was placed on probation for a period of five years with specified terms.

Nicolai N. Rilcoff, M.D.—In the matter of the accusation of Dr. Nicolai N. Rilcoff, this was continued to March 22, 1947. On March 23d, he was found guilty of unprofessional conduct as defined in Section 2392 of the Business and Professions Code. His license was suspended for a period of one year, after which he will be placed on probation for a period of five years.

News

"Solon Probe Group For Kern Hospital Recommended Licenses—A legislative subcommittee which has been investigating the administration of the county operated Kern General Hospital in Bakersfield recommended the enactment of a law requiring such institutions to obtain licenses from the state department of public health . . . The subcommittee, headed by Assemblyman C. Don Field of Los Angeles County, filed a 53-page report charging the Kern County Hospital with employing unlicensed doctors, one of whom was accused of selling donated blood and retaining the proceeds . . . Chairman Field said a copy of the report is being forwarded to the attorney general for 'proper action'. . .'It is incredible and amazing,' the report said, 'that a situation such as that disclosed by the evidence at the subcommittee's hearings could have existed in Kern County; that a score of unlicensed doctors would be hired as county employes, with the knowledge of the board of supervisors and of the medical director of the county hospital, and be permitted to practice medicine, in flagrant violation of our law'. . . The report noted that the Kern County district attorney has filed charges against Alfred F. Rhoden, accused of practicing without a California license, and that the State Board of Medical Examiners has suspended the license of Dr. Nicolai Rilcoff, former medical director of the hospital."—(Sacramento, California *Bee*, March 31, 1947.)



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"The industrial physical examination is a tool which, when correctly used, is an effective instrument for the proper placement of employees," states F. E. Poole, M.D., of Glendale C,alif.

Discussing the objectives and methods of industrial physical examinations in the January 11 issue of *The Journal of the American Medical Association*, Dr. Poole writes that "generally, it is sufficient to determine that the worker has normal vision, hearing and use of the extremities and is free from communicable disease, serious disease of the heart or the lungs, hernia, deformity or any other condition which would be aggravated by employment.

"Depending on the needs of the specific industrial plant, this basic examination may be expanded in many ways; for example, in a plant where high noise levels are encountered, closer attention must be given the ears, while in a factory where much heavy lifting is done, special attention must be paid to the body structure, back and hernias."

Dr. Poole points to workmen's compensation laws and the responsibility of employers for the care of occupational injuries as instrumental in introducing physical examinations in industry. "This responsibility encouraged the attempts to weed out by examination all but the most physically fit workers, eliminating those with physical defects, who, it was thought, might have a higher accident frequency.

"This method did not result in the desired lessening of industrial accidents; it was found that freedom from physical defect is not necessarily synonymous with freedom from accident proneness. Physical standards were

(Continued on Page 60)

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PHYSICAL EXAM EFFECTIVE TOOL FOR PLACEMENT OF EMPLOYEES

(Continued from Page 56)

placed so high in many instances, however, that workers physically substandard in some detail, yet perfectly capable of satisfactory employment in many occupations, were eliminated from the work force."

The author, therefore, suggests that any information transmitted to the personnel office should be for the one purpose of classifying the employee's ability to work. He recommends the following classification system:

Group 1: "Unlimited." Acceptable for any type of work.

Group 2: "Limited." If a physical handicap or defect is serious enough to limit a person's working ability, constitute a hazard at work, or be seriously aggravated by some type of work, such a person will be classified as limited and placed in one or more of the following classes, which are intended to describe in lay terms the type of work which he should avoid. The reason for the limitation is a confidential matter and of no practical interest to the sunpervisor as long as he is aware of the type of work prohibited.

Class I—No hazardous machinery

Class II—No heavy lifting

Slass III—Work at ground level only

Class IV—Avoid contact with or exposure to (agent or substance to be specified)

Class V—No extensive walking or standing

Class VI—Miscellaneous (this may be expanded to other classes as needed by the type of industry)

Group 3: "Severe Handicaps" involving special placement problems (as the blind). Transfers are not to be made without approval of the Medical Department.

Group 4: "Temporarily Unable to Work" because of a transitory condition or a correctible defect.

Group 5: "Rejection." Serious physical or mental disease or disability rendering the persons unfit for any work.

Physical examinations should continue at set intervals after the employee is hired, to prevent occupational disease. The author states that "education of the employee is an important part of the program for occupational disease control. Employees should not be kept in ignorance of the hazards involved in their work because of the employer's fear that this knowledge might induce them to bring unjust claims for imagined injury. It has been our experience that employee morale is improved when the workers are aware of the protection afforded by the continuing plant surveys and periodic examinations."

Blaise Pascal (1623-1662).—A body wraked with disease and a mind castigated by severe self-discipline, were Pascal's lifelong handicaps. He wore an iron-spiked girdle with which he prodded his ribs to ward off drowsiness. Frequently, he was subject to dizzy spells, after runaway horses had dragged his carriage over a bridge, leaving the wheels hanging precariously over a parapet of a steep cliff. His immortal "Pensées" were written while he was afflicted with neuralgia and other nervous disorders.—Warner's *Calendar of Medical History.*



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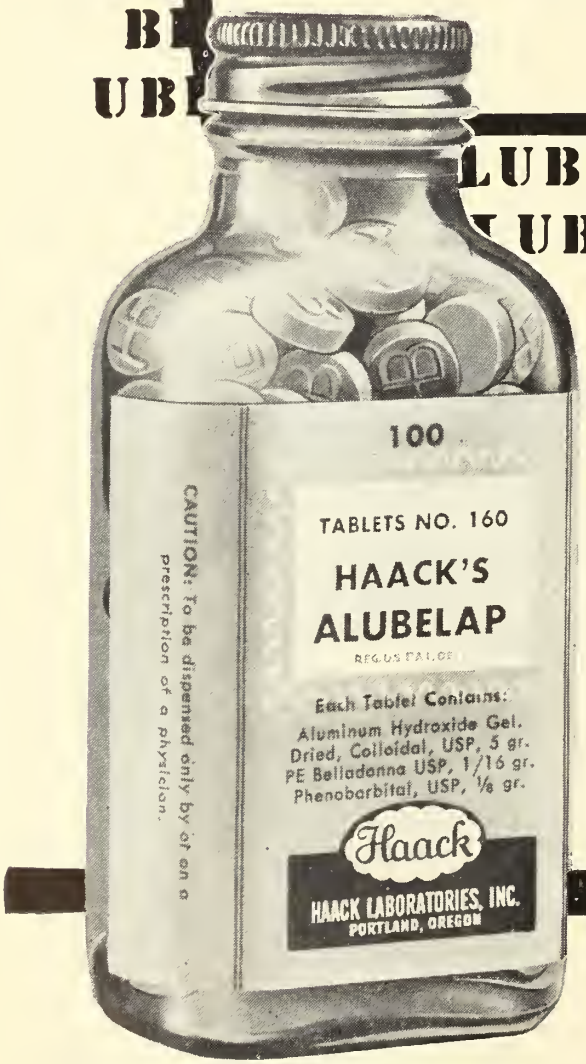
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*Journal of the American Medical Association—Sept. 26, 1942, Vol. 120, pp. 269-270



COLDS COST AMERICAN PUBLIC BILLION DOLLARS EACH YEAR

"The common cold costs the American public more than a billion dollars each year," according to Noah D. Fabricant, M.D., a noted specialist in otolaryngology.

Writing in the current issue of *Hygeia*, health magazine of the American Medical Association, Dr. Fabricant states that "of all ailments, it is the most democratic, striking virtually every inhabitant in the United States at least once a year. No one is immune by virtue of his position or importance or can hope to go through adult life unescorted by sieges of the common cold."

Dr. Fabriant is now serving as Clinical Professor of Otolaryngology at the University of Illinois College of Medicine in Chicago.

"In this country there are three seasons of the year when colds are most prevalent," he writes. "One occurs in October and November, a second season early in January and the third in March and April. The first epidemic of colds arrives with the first days of fall."

Evidence points to a virus as the cause of colds but bacteria produce the unpleasant symptoms. The author states that "at the time the earliest symptoms of the common cold appear, there may be some hope for aborting the malady. During the early stages one is often conscious of a sensation of dryness and burning in the back part of the nose and throat. This sensation often serves as an initial warning that the cold is taking hold. If you heed the preliminary warning, you will then consider medical action imperative.

"A steam kettle or a vaporizer should be used to supply moisture to the stricken upper respiratory passages. In addition, a warm room (temperature about 70 degrees) with a relatively high humidity, reduces nasal symptoms and often prevents complications in the throat and lower respiratory passages."

The author gives the following advice to persons with colds and reveals the fallacies of certain treatments:

"Rest in bed, and this cannot be emphasized enough, has stood the rigid test of time as a most sane and effective measure during the early stages of the common cold. . . .

"Various drugs are available if fever occurs during a cold. Among the most popular and most widely used are salicylates. . . .

"So widespread is the belief of the American public that the use of sodium bicarbonate (baking soda) or other alleged antacids is a preventive in the treatment of the common cold that it may really be called a part of American folklore. There is no scientific basis for the notion that sodium bicarbonate is of value in the treatment of colds. . . .

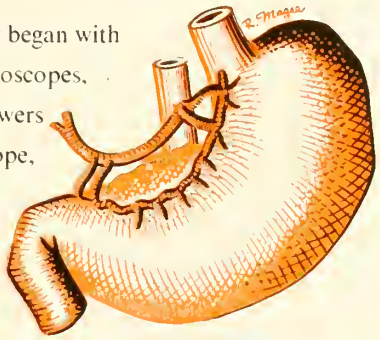
"To determine the value of cold vaccines, or 'cold shots' as they are popularly designated, numerous experiments have been made. One large eastern company interested in the problem of industrial absenteeism as it relates to the common cold and other acute respiratory infections realized, after considerable study, that vaccines give no evident protection against colds. Physicians conducting these experiments state that 'the indiscriminate use of cold vaccine now available is not the answer to the problem of industrial absenteeism due to acute respiratory infections.' Perhaps the future will see the introduction of a highly improved injection type of vaccine that really can produce results."

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TRACE MUCOUS COLITIS, COLON DISORDER, TO NERVOUS SYSTEM

The present trend in medicine is to consider the nervous system as the origin of mucous colitis, a disorder of the colon, according to Harry Gauss, M.D., of Denver, Colo.

Writing in the current issue of *Hygeia*, health magazine of the American Medical Association, Dr. Gauss states that in this disease "the colon expresses the individual's conflict with the world in which he lives. Somewhere in his struggle for existence, or for power, the individual has encountered one or more rebuffs or frustrations. This results in a psychic conflict that is expressed as fear, worry, anxiety or other psychic states that are conveyed to the sympathetic nervous system of the bowel and result in derangements of the colon such as rumblings, excessive flatulence, localiz.ed or diffuse abdominal pain, diverse constitutional symptoms and the appearance of mucus in the stools."

The author points out that "attempts have been made to explain the occurrence of mucous colitis on other grounds than that of nervous origin. These attempts include errors in diet, nutrition, vitamin deficiency, allergy and other factors. These factors are not of much importance, since the removal or correction of them has little influence on the course of the disease."

A patient, according to Dr. Gauss, may develop any of the following symptoms of the disease: "Localized pain may occur anywhere in the abdomen, although it tends to be identified with the colon, especially the descending segment or that part which is just above the left hip bone and somewhat towards the middle of the body. Hyperacidity and heartburn in the pit of the stomach are

(Continued on Page 70)

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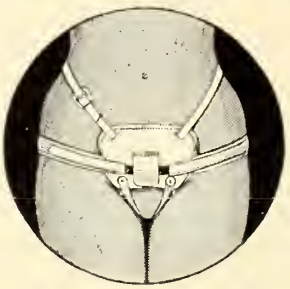
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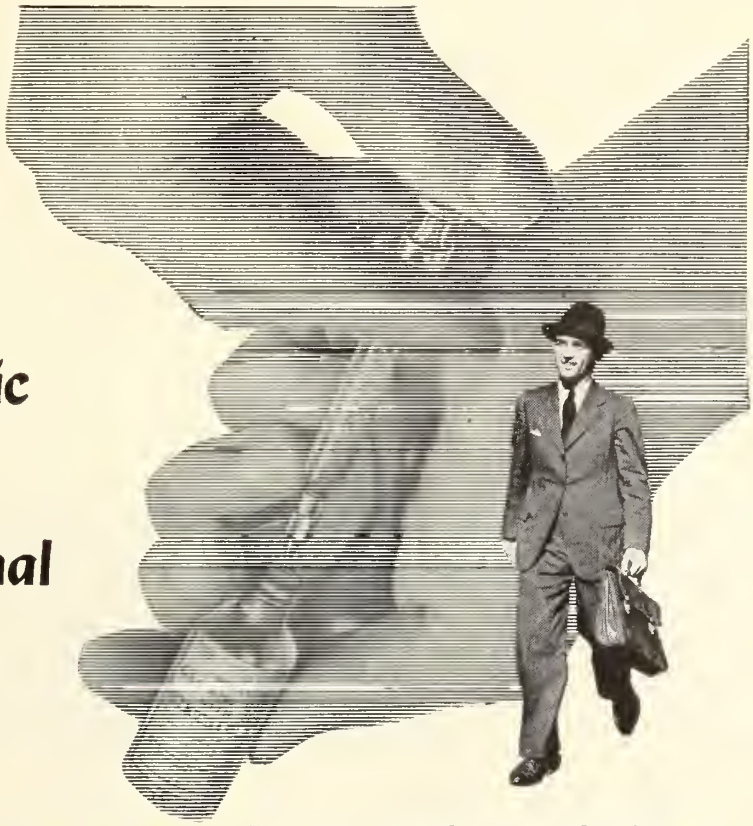
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1. Bauman, L.: Bull. New Eng. M. Center 5:17 (Feb.) 1943.

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TRACE MUCOUS COLITIS, COLON DISORDER, TO NERVOUS SYSTEM

(Continued from Page 68)

common. This heartburn is often relieved by soda or food and sometimes occurs when the stomach is empty so that it may suggest ulcers of the stomach. X-rays, however, will easily separate one from the other. . . . Excess gas is another distressing symptom of mucous colitis. These pains may be mild or sharp and knifelike.

"Constipation is common. . . . Numerous other symptoms that also may develop during the course of the disease include nausea, coated tongue, loss of appetite, offensive breath, tensional headaches, low blood pressure, insomnia, irritability, palpitation, and dizziness."

In this ailment the patient must be treated as well as the disease. However, the author states that "treatment is not limited to the psychic approach, although it is the important step. Other important procedures consist of rest in bed, which tends to relax the person as well as reduce his nutritional requirement. This is an aid to the digestive tract, since it is already overburdened by the disease process. Not all persons, however, respond well to bed rest. Some persons tend to become moody when left alone with their own thoughts, so these persons are better off up and about. Besides bed rest, various forms of relaxation, such as trips and vacations, and other forms of physical therapy may be employed.

"The diet, usually bland, should contain the essential vitamin, mineral, protein, fat, carbohydrate and energy requirements, with a minimum of roughage, from which all the known digestive irritants have been removed.

"Certain drugs are useful. These enable the physician to control symptoms, allay the anxiety of the patient, establish confidence in the program and make the patient more comfortable. The drugs commonly employed are sedatives and antispasmodics."



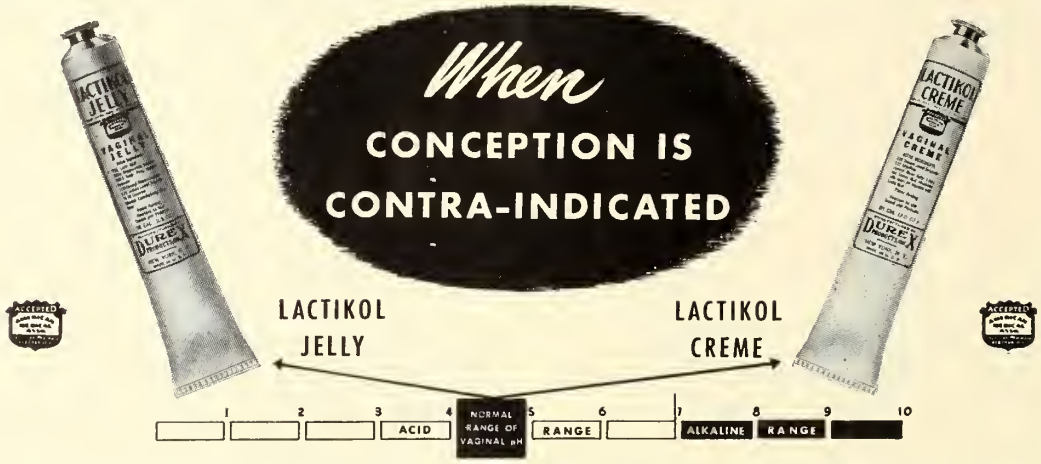
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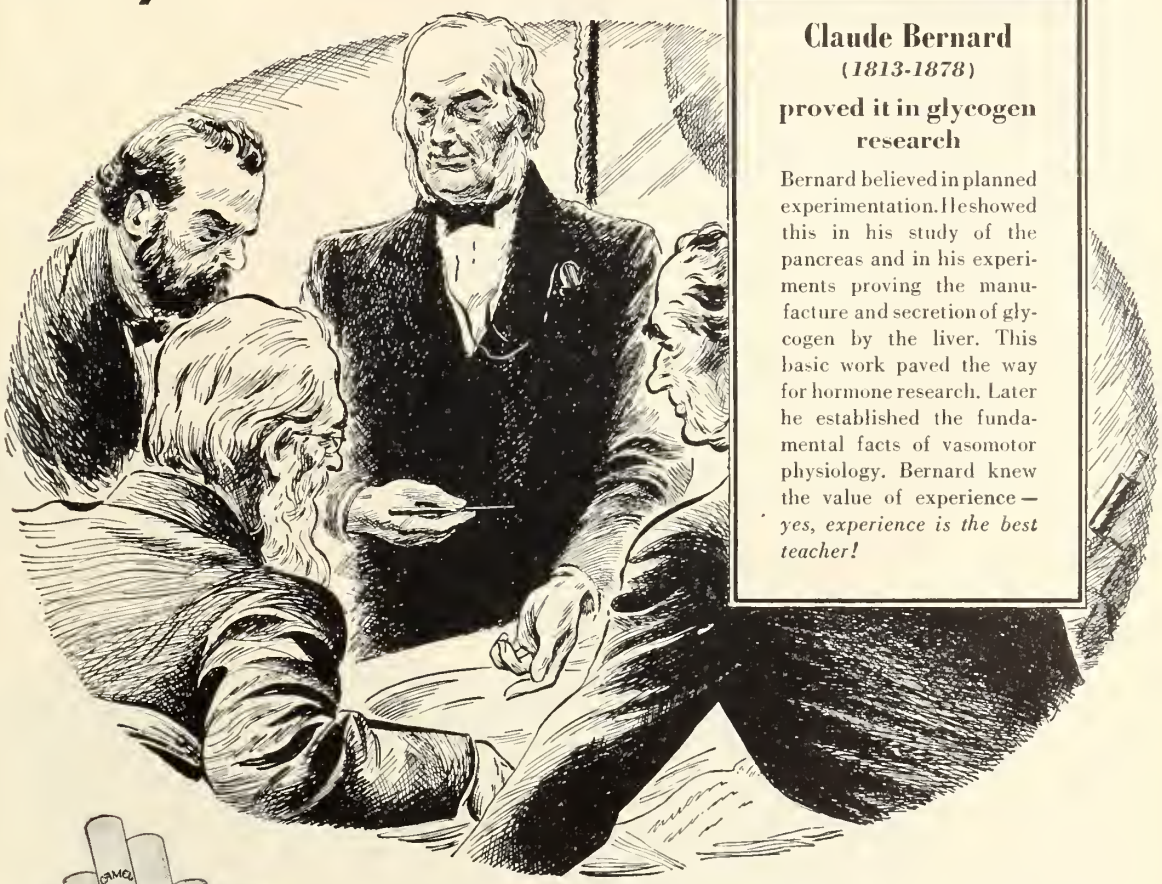
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52 PLANS GRANTED SEAL OF ACCEPTANCE BY COUNCIL OF MEDICAL SERVICE

The Council on Medical Service of the American Medical Association announces that a total of 52 prepayment medical care plans have been granted the "Seal of Acceptance."

The most recent plans which were granted the right to use the seal are the Louisiana Physicians Service, Inc., New Orleans; New Hampshire-Vermont Physicians Service, Concord, N. H., and the 23 member bureaus of the Washington State Medical Bureau.

Louisiana Physicians Service, Inc., is a statewide plan sponsored by the Louisiana State Medical Society with offices in the Tulane Building, New Orleans. Frank Lais, Jr., is the executive director.

New Hampshire-Vermont Physicians Service is the result of the merging of New Hampshire Physicians Service, Concord, N. H., with Vermont Physicians Service, Rutland, Vt. The executive offices are located at Concord and the executive director is R. S. Spaulding. This is the first plan sponsored by the medical profession which covers the population of the two states under a single administrative office.

The standard under which a plan is granted the Seal of Acceptance require that it must first have the approval of the state medical society or, if local, it must be approved by the local medical society in the area in which it operates. The members of the medical profession must assume responsibility for the medical services included in the benefits. The plan should have no regulation which restricts free choice of a qualified doctor of medicine who is practicing in the locality covered by the plan and who is willing to give service under the conditions established. The method of giving the service must retain the personal, confidential relationship between the patient and the physician. These and other qualifications must be met by plans seeking the right to use the council's seal.

Of special interest regarding prepayment medical care plans on a nationwide basis is the fact that those with a large number of employees have expressed a desire to deal exclusively with plans which merit the council's Seal of Acceptance.

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RESTRICTED USE OF SALT URGED FOR CONGESTIVE HEART FAILURE

Three Boston physicians advocate the restriction of salt in the diet with a liberal intake of fluid for patients with congestive heart failure, especially those with coronary and hypertensive heart disease, according to an article in the January 4 issue of *The Journal of the American Medical Association.*

The physicians, who are from the Massachusetts General Hospital, are Edwin O. Wheeler, Graduate Assistant in Medicine, William C. Bridges, Commonwealth Fund Research Fellow, 1945-46, and Paul D. White.

They point out that "with a few notable exceptions, casual limitation of salt and fluid has been the custom throughout the country, and generally more stress has been placed on the restriction of fluid than on that of salt."

When the heart is unable to fulfill its function adequately as a pump and supply sufficient circulation to all of the tissues of the body, such symptoms as shortness of breath, swelling of the legs and abdomen may result. To prevent this accumulation of fluid which produces swelling in the tissues, the physicians treated 50 patients with congestion due to heart diseases of all types during the last year and a half.

Of the 35 patients who followed the salt restricted diet faithfully, 13 did not show improvement, while 22 were better; of the latter group 10 showed great benefit. "In no instances were patients made worse by this therapy," state the authors.

Twenty of the 35 patients had hypertensive (caused by high blood pressure) and/or coronary heart disease. Eighteen of these showed improvement, in nine of whom it was pronounced.

The physicians warn that "there are certain precautions which must be carefully observed in following a diet low in sodium [salt]:

1. Salt, soda, or baking powder should not be used in the cooking or at the table. Substitutes for salt which contain sodium should not be used.

2. Sweet butter or butter that has been washed free of salt may be used. Bread and salad dressings must be prepared salt free. Canned foods, unless prepared salt free, should not be used.

3. Salty appetizers or salted foods, such as nuts, potato chips, sardines, olives, pickles and relishes, are to be guarded against. Cheese and smoked or salted meats are not permitted.

4. Medicines containing sodium should not be used against gas or indigestion. Calcium salts are helpful in this regard."



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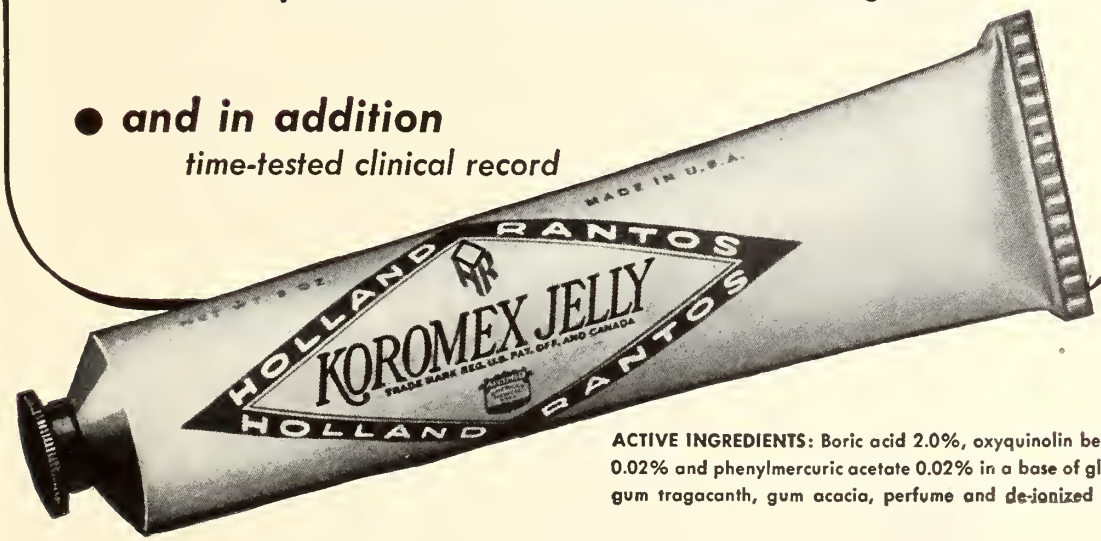
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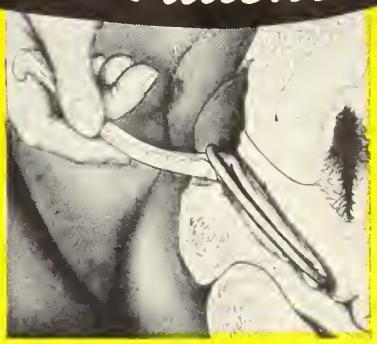
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WARTIME EXPERIMENTS HAVE MADE MALARIA CONTROL A POSSIBILITY

Wartime developments can eradicate malaria in the United States within a decade and make it a negligible problem in tropical areas, according to Capt. James J. Sapero, Medical Corps, United States Navy.

Writing in the November 16 issue of *The Journal of the American Medical Association*, Captain Sapero, who is from Washington, D. C., cites another investigator who stated that with suitable organization, malaria could be eradicated "from the United States within the next decade, and that in many tropical areas, even though economically depressed, this disease, now of the greatest importance, may become in the next half century one of the least of public health problems."

The search for a curative drug during the war emergency led to many trials and errors. Quinine, for decades considered the most important drug in malaria treatment, was displaced by atabrine when most of the cinchona plantations fell into the hands of the enemy early in the war. Although atabrine had been known for some years before the war, overseas experience for the first time established it as an efficient and safe antimalarial. But it did not cure the disease.

This presented a serious problem for military doctors who had to find a cure for the stubborn South Pacific type of malaria caused by Plasmodium vivax. Captain Sapero states that "American infections caused by P. vivax terminated usually within a period of 18 months; South Pacific infections, in contrast, continued frequently on into the third year."

Finally, as a result of wide-scale research, chloroquine (SN-7618) was shown to be three times as powerful as atabrine, less poisonous, free from the stomach and intestinal intolerance caused by atabrine and without the skin-staining quality of this drug.

"Furthermore," states the author, "it rapidly controls clinical symptoms in both the P. vivax and the P. falciparum types of malaria and is curative in the latter."

In the course of the continued search for a cure for the South Pacific malaria, pamaquine and pentaquine (SN-13276) were discovered to be successful but too poisonous. Investigators are still searching for a nontoxic drug.

Another powerful weapon launched against malaria during the war was DDT. "Prior to World War II," writes Captain Sapero, "the main attack on anophelines [mosquitoes transmitting malaria] was almost solely confined to measures which would destroy larval forms. Measures against adult mosquitoes were difficult and infrequently attempted. With the introduction of DDT, however, the attack has become twofold, i.e., against both larvae and adults.

"Where there are large areas to cover, airplanes have proved effective for the dispersal of DDT. In the extensive trials conducted during the war, different types of planes were used, varying from the small cub plane which would carry only 27 gallons to large multimotored transport planes with a capacity of many hundreds of gallons. These wartime trials indicate that the airplane in the postwar period will serve as an important aid to malaria control, not only as a device for saving time and labor but also for the control of areas otherwise inaccessible.

"In the use of DDT to control adult mosquitoes, many promising possibilities are being explored. During the war military forces found that by impregnating bed nets, by spraying the inside of tents and other types of housing and, particularly, by spraying native quarters a

significant reduction of the adult mosquito population could be accomplished. The attack on adult mosquitoes means that malaria transmission in an uncontrolled area can be stopped far more readily than has ever before been possible. No longer is it necessary to wait for the natural mortality of infected adult insects, as was formerly the case when the attack was made exclusively against larvae. Even more promising are current experiments in which complete control is being attempted solely by adult kill. Such experiments, it is hoped, will prove that whenever larvicidal measures are impractical for reasons of cost or inaccessibility, effective control by adult eradication can nevertheless be achieved."

New Hour For Radio Show

"California Caravan" the radio show sponsored by the California Medical Association is now heard every Friday evening at 8:45 p.m. rather than at the original Saturday evening time. The same 17 Mutual Stations are being used.

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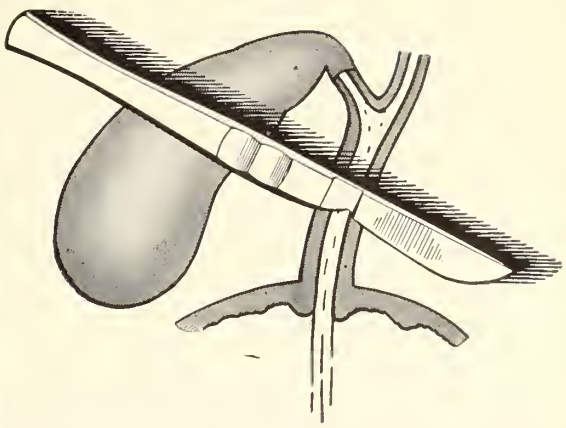
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VITAMIN B COMPLEX FRACTION EFFECTIVE FOR TICK FEVER

A drug, belonging to the vitamin B complex group, has been found highly effective in the treatment of Rocky Mountain spotted fever, a tick-borne disease, which is often severe and sometimes fatal, according to four investigators writing in the December 14 issue of *The Journal of the American Medical Association.*

This study was made through the cooperation of the Delaware, Memorial, St. Francis and Wilmington General Hospitals of Wilmington, Del. The investigators are Lewis B. Flinn, M.D., John W. Howard, M.D., Charles W. Todd, Ph.D., and Elvyn G. Scott, M.T.

The authors cite the Delaware State Board of Health which reported that in the 10 year period from 1936 to 1945, inclusive, they were notified of 50 cases of Rocky Mountain spotted fever. Of those 50 cases, 14 were fatal, a mortality of 28 per cent.

A group of 21 untreated patients studied in the Wilmington, Del., area from 1938 to 1946 had a death rate of 24 per cent. Fifteen of these patients were under 40 years of age; two died—a mortality of 13 per cent. The authors state that "it is evident, therefore, that in this particular area Rocky Mountain spotted fever is of a fairly severe type."

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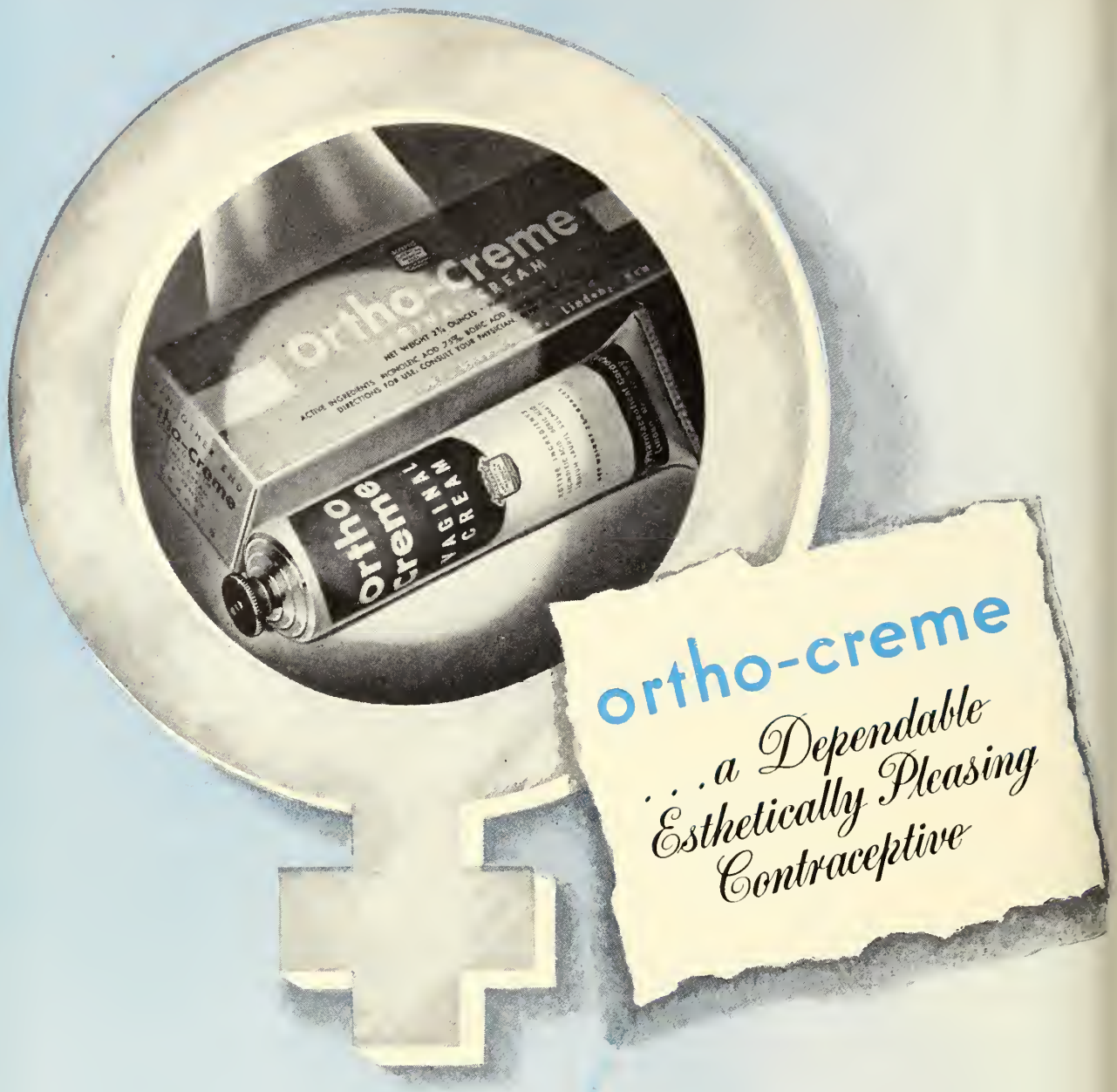
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ORIGINAL ARTICLES

ROENTGENOLOGY IN CHRONIC MASTOIDITIS, Harold A. Fletcher, San Rafael, and Frank Windholz, San Francisco 331

SUBACUTE GENERALIZED NEUROMUSCULAR EXHAUSTION — A REPORT OF THREE CASES, J. M. Nielsen, Los Angeles 338

THE PRESENT STATUS OF SURGERY IN CONGENITAL HEART DISEASE John C. Jones, Los Angeles 341

AN EVALUATION OF TOPICAL PENICILLIN THERAPY; REVIEW OF RECENT LITERATURE, Thomas H. Sternberg and Paul LeVan, Los Angeles 344

TREATMENT OF INTERSTITIAL CYSTITIS, Roger W. Barnes, Los Angeles 347

CUTANEOUS REACTION TO PENICILLIN, Ben A. Newman, Los Angeles 349

ESTROGEN TREATMENT OF CHRONIC URETHRITIS IN THE FEMALE Frederick S. Howard, San Francisco 352

THE PRESENT-DAY TREATMENT OF ASTHMA, M. Coleman Harris, Beverly Hills 354

FRACTURE OF THE OLECRANON PROCESS DUE TO MUSCLE PULL WITH THE FOREARM IN HYPEREXTENSION, A. Waxman and H. Geshelin, Los Angeles 358

NEUROLOGICAL COMPLICATIONS TO TREATMENT WITH RABIES VACCINE Francis H. Redewill, Jr., Whittier, and Laurence J. Underwood, Huntington Park 360

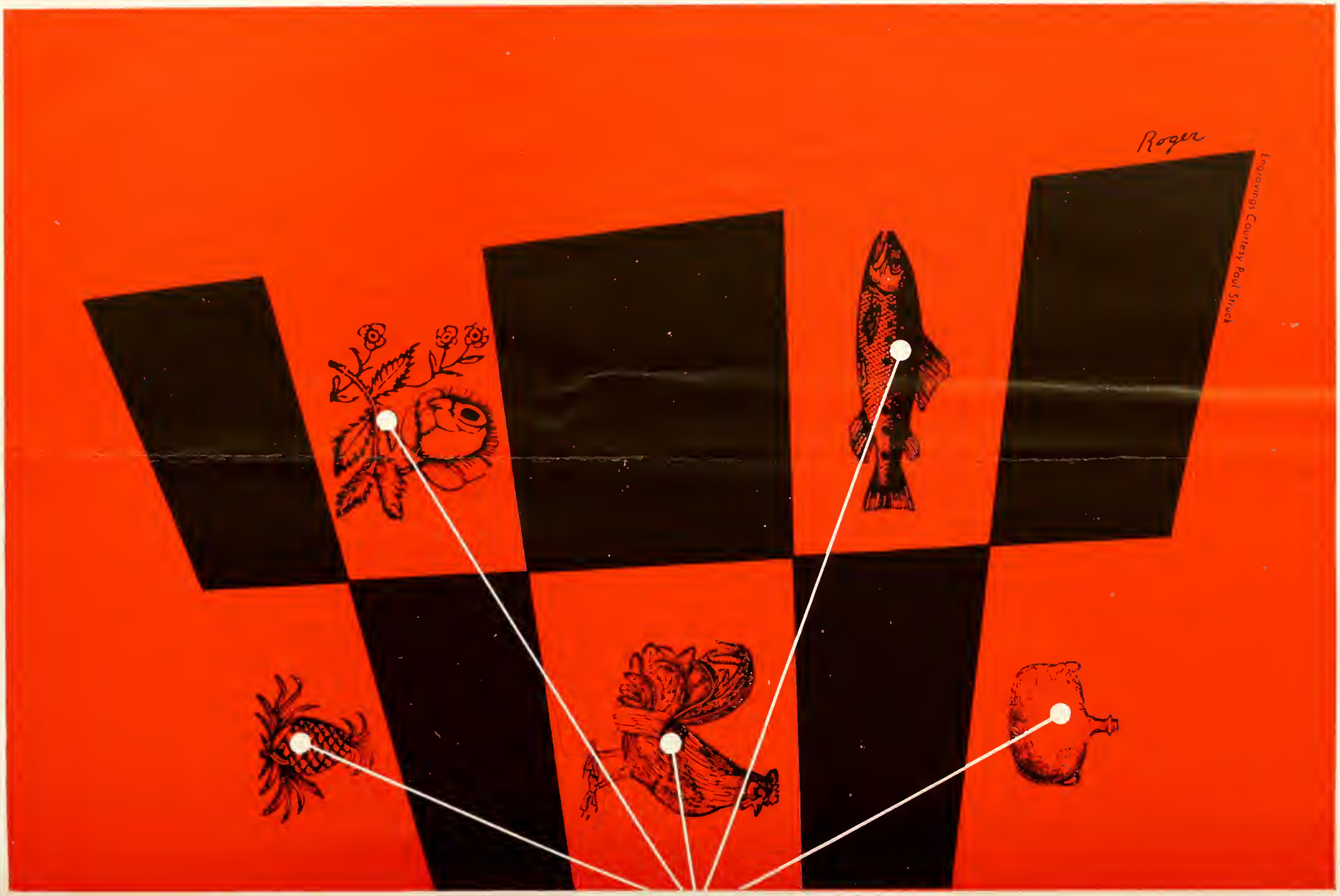
THE CANCER PROBLEM—CHAPTER I OF THE CALIFORNIA CANCER COMMISSION STUDIES, David A. Wood and Michael B. Shimkin, San Francisco 364

EDITORIALS 372
CLINICAL CONFERENCE 375
CALIFORNIA MEDICAL ASSOCIATION 378
NEWS AND NOTES 414
INFORMATION 416
BOOK REVIEWS 417
MEDICAL JURISPRUDENCE 420
BOARD OF MEDICAL EXAMINERS Adv. page 42
ANTISPASMODICS Adv. page 10

VOLUME INDEX AT END OF TEXT SECTION

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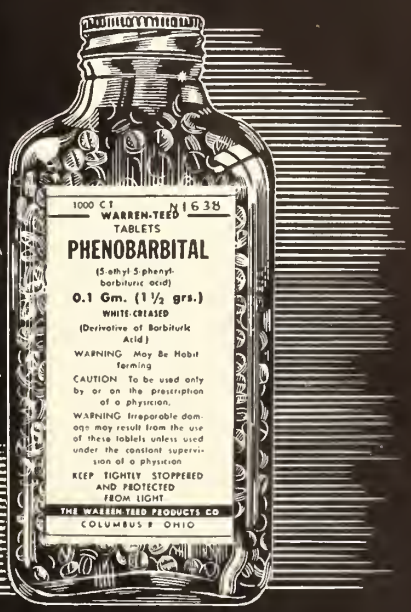
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Ames Company, Inc. 34
Ar-Ex Cosmetics, Inc. 56
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Ayerst, McKenna & Harrison Limited 13

Baker Laboratories, The 15
Barnes-Hind Laboratories 16
Baxter, Inc., Don Insert 50 and 51
Belanger, Joseph 28
Benjamin, M. J. 42
Birtcher Corporation, The 62
Borcherdt Malt Extract Company 50
Borden Company, The 9
Broemmel's Pharmaceuticals 3
Burroughs Wellcome & Co. 25 and 59

California Sanatorium, The 46
Camp & Company, S. H. 47
Classified Advertisements 8
Ciba Pharmaceutical Products, Inc. Insert 16 and 17
Coca-Cola Company, The 64
Compton Sanitarium 24
Cook County Graduate School of Medicine 54
Crocker First National Bank 10
Cutter Laboratories 4th Cover

Doctors Business Bureau 58
Durex Products, Inc. 46

Farm, The 28
French Hospital 17

Garden Grove Sanitarium 52
Greens' Eye Hospital 7
Guth, C. Rodolph 7

Haack Laboratories, Inc. 22
Hanger, Inc., J. E. 12
Harrower Laboratory, Inc., The 27
Hittenberger Co., C. H. 38
Hygeia Sanatorium 42

Ingram Laboratories, Inc. 10
International Vitamin Corporation 32

Jenkel-Davidson Optical Co. 18

King Ambulance Company 16
Kinney & Sons, Inc., H. W. 19

La Loma Feliz 44
Las Encinas Sanitarium 20
Lederle Laboratories 31 and 49
Lilly and Company, Eli Insert 32
Livermore Sanitarium 3
Los Angeles Tumor Institute 56
Luziers, Inc. 20

M & R Dietetic Laboratories, Inc. 37
Mead Johnson & Company 3rd cover
Medical Protective Company, The 11
Moulin Studios, Gabriel 60

National Dairy Products Co., Inc. 39
New York Polyclinic Medical School, The 28
Noble Placement Agency 44

Officers of the California Medical Association 2, 4, and 6

Pacific Coast Medical Bureau 34
Park Sanitarium 51
Parke, Davis & Company 2nd cover; 1 and 36
Pasadena Research Laboratories, Inc. 51
Philip Morris & Co., Ltd., Inc. 63
Photovolt Corp. 54
Physicians Casualty Association 12
Physicians Formula Cosmetics, Inc. 59
Pottenger Sanatorium and Clinic, The 17

Raleigh Hills Sanitarium, Inc. 48
Reynolds Tobacco Co., R. J. 29
Richardson Mineral Springs 64
Riggs Optical Co. 44
Saint Francis Hospital 54
St. Luke's Hospital 24
San Francisco Surgical Co. 24
Schering Corporation 53
Schmid, Inc., Julius 66
Searle & Co., G. D. 33
Servex, Inc. 58
Shadel Sanitarium 23
Sharp & Dohme 45
Smith-Dorsey Company, The 57
Stacey, Inc., J. W. 38
Stayner Corporation 40
Stearns & Co., Frederick 21
Stuart Oxygen Co. 50
Tobin Tobacco Co., R. R. 34
Upjohn Company, The 55
Urell, Inc. 56
Varick Pharmacal Co., Inc. 65
Wander Company, The 30
Warren-Teed Products Co., The 5
Washington Institute of Medicine 14
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With inspiration born of distress, he made a last minute adjustment of his burden. As the elevator door opened, passengers on the car saw him hobble aboard, the business end of the mallet pressed into his arm-pit, the handle against the floor; and upon his face the smile of one who triumphs over pain.

Barbara Ann, accompanied by her mother, drove the car up before the garage doors, slipped from behind the wheel, and, almost inaudibly, handed the key to Mayor Lewis.—*From an Associated Press report in the San Francisco Chronicle.*

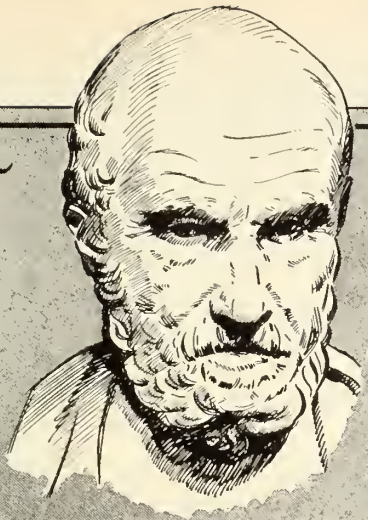
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Frank L. Meleney, M.D., and Miss Balbina Johnson, B.A., of Columbia University's College of Physicians and Surgeons and the Presbyterian Hospital, New York, describe their powerful antibiotic agent in the March 8 issue of *The Journal of the American Medical Association.*

Bacitracin, they say, was tried on 100 patients and saved 62 of them from the surgeon's knife. In 100 cases of surgical infections treated locally with bacitracin a favorable response was obtained in 88 per cent.

"Bacitracin will be of clinical importance," the authors say, "only if it can succeed where penicillin or the sulfonamide compounds cannot."

Infected fingers, boils, carbuncles, sties and ulcers are some of the conditions in which bacitracin made it unnecessary for the surgeon to lance, or, if surgery was needed, it helped speed healing.

The substance worked with such speed, the article says, that the results surprised both the patient and physician.

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In describing results of their treatment, the authors say:

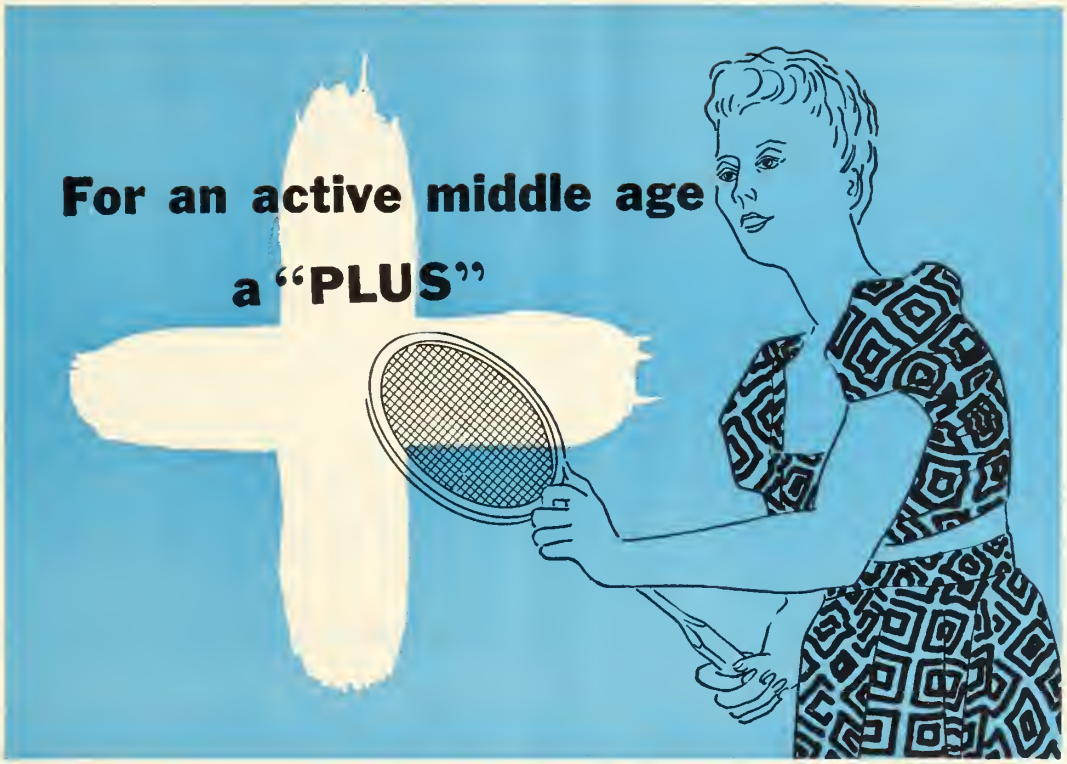
"One patient with a large indurated and inflamed abscess of the face and another with a deep abscess of the chest wall felt so much better after one injection that they did not think it necessary to come back the next day for treatment. On the third day when they returned the wounds were quiescent.

"Treatment of several patients with sties required nothing more than bacitracin solution dropped in the eye."

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Another patient was treated for a deep abscess of the cheek. "The infection promptly subsided following aspiration of the pus and the injection of bacitracin on two successive days," the article continues. "The swelling was

(Continued on Page 16)



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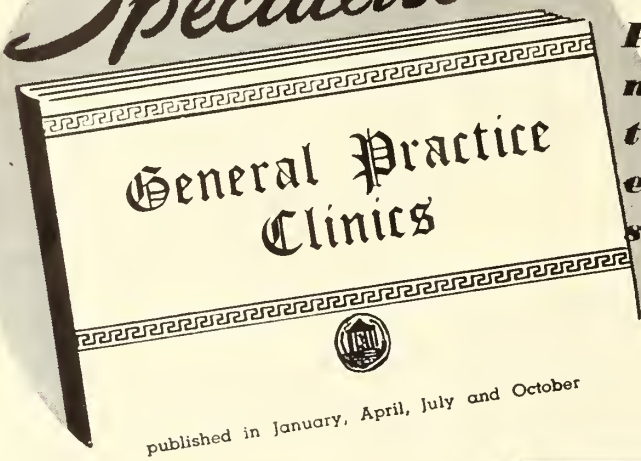
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(Continued from Page 12)

all gone on the fourth day, and the need for surgical intervention was obviated."

The authors explain that most of the organisms found in the infections treated were susceptible to both penicillin and bacitracin. Thirty were resistant to penicillin and susceptible to bacitracin. Six were resistant to bacitracin and susceptible to penicillin. A few were resistant to both.

COVELO SEEKS PHYSICIAN TO PRACTICE IN COMMUNITY

The Community Council of Round Valley (Covelo and vicinity) is sending out an appeal to the medical profession of California for help in securing the services of a resident physician. This community, with a population of about 1300, has been without immediately available medical service since the outbreak of the war. Recently the people of the area have been cared for mostly by the physicians and the hospital in Willits, 45 miles distant.

By way of prospectus for interested physicians, the Community Council reports:

Round Valley lies at the headwaters of the Eel River, between forested hills. General farming and livestock raising are the principal industries. One saw mill is now in operation and another is under construction. Population of the Valley and the area served by the town of Covelo is about 1300. Covelo's population is about 400. There is an excellent high school and a good elementary school in the town. Three general merchandise stores, a drug store, an electrical appliance store, four garages, a bank, two restaurants, a hotel and a meat market for the

(Continued on Page 17)

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COVELO SEEKS PHYSICIAN TO PRACTICE IN COMMUNITY

(Continued from Page 16)

commercial needs of the community. There is no hospital in Covelo, although it is anticipated that this need will be met before long. In the northern part of the Valley is an Indian reservation where about 500 Indians reside.

Interested physicians may receive further information by writing to the Round Valley Community Council, Covelo, California, care of G. M. Bigger, chairman of Committee on Medical Service.

AMERICAN INVESTIGATORS FIND NEW USE FOR BRITISH ARSENIC ANTIDOTE

BAL (British Anti-Lewisite), an antidote against arsenic-containing substances designed for chemical warfare, has also proved to be an effective antidote against gold salts poisoning which may occur in the treatment of rheumatoid arthritis, according to three groups of investigators writing in the March 15 issue of *The Journal of the American Medical Association.*

Five cases of acute poisoning due to gold and one of acute poisoning due to arsenic have been treated successfully with BAL at the arthritis clinic of the Philadelphia General Hospital by Abraham Cohen, M.D., Philadelphia, Joel Goldman, M.D., Lewistown, Pa., and Alfred W. Dubbs, M.D., of Allentown, Pa.

"No previous publication on this use of BAL has come to our attention," state the physicians.

Although rashes, scaling of the skin and other poisonous manifestations of gold salts are almost dramatically cleared away with BAL, the physicians caution that this antidote is not entirely harmless. It may produce nausea, vomiting, and pain in the legs, arms, abdomen and head.

(Continued on Page 20)

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AMERICAN INVESTIGATORS FIND NEW USE FOR BRITISH ARSENIC ANTIDOTE

(Continued from Page 17)

Another group of investigators—Charles Ragan, M.D., and Ralph H. Boots, M.D., of New York—report the treatment at Presbyterian Hospital of five patients who developed skin inflammation following treatment with gold.

They state that in four patients in whom the inflammation had existed for less than two months the intense itching ceased and the rash cleared under treatment with BAL. In one patient in whom the rash had existed for three months the itching continued, as did the rash.

A third group of investigators from the University of Buffalo School of Medicine and the Buffalo General Hospital report that BAL treatment beneficially altered two serious reactions to gold salt therapy. The physicians are L. Maxwell Lockie, B. M. Norcross and C. W. George, all of Buffalo.

CUTTING NERVES STIMULATING ACIDITY AIDS ULCER PATIENTS

Cutting the nerves which telegraph sensations to the stomach has brought relief to 91 per cent of the stomach ulcer patients operated on at a Boston hospital, according to four physicians writing in the March 15 issue of *The Journal of the American Medical Association.*

The physicians—Francis D. Moore, William P. Chapman, Milford D. Schulz and Chester M. Jones—are from the Department of Surgery and the Department of Medicine, Harvard Medical School, and the Gastrointestinal Clinic, Massachusetts General Hospital.

The theory behind cutting of the vagus nerves in stomach (peptic) ulcer patients is to prevent these nerves from sending impulses, originating in the brain, to the ulcerated stomach where they keep it from healing by inducing

(Continued on Page 24)



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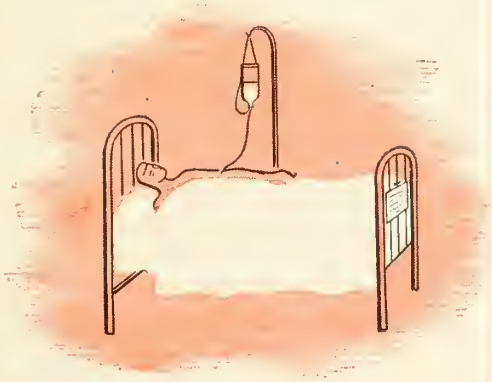
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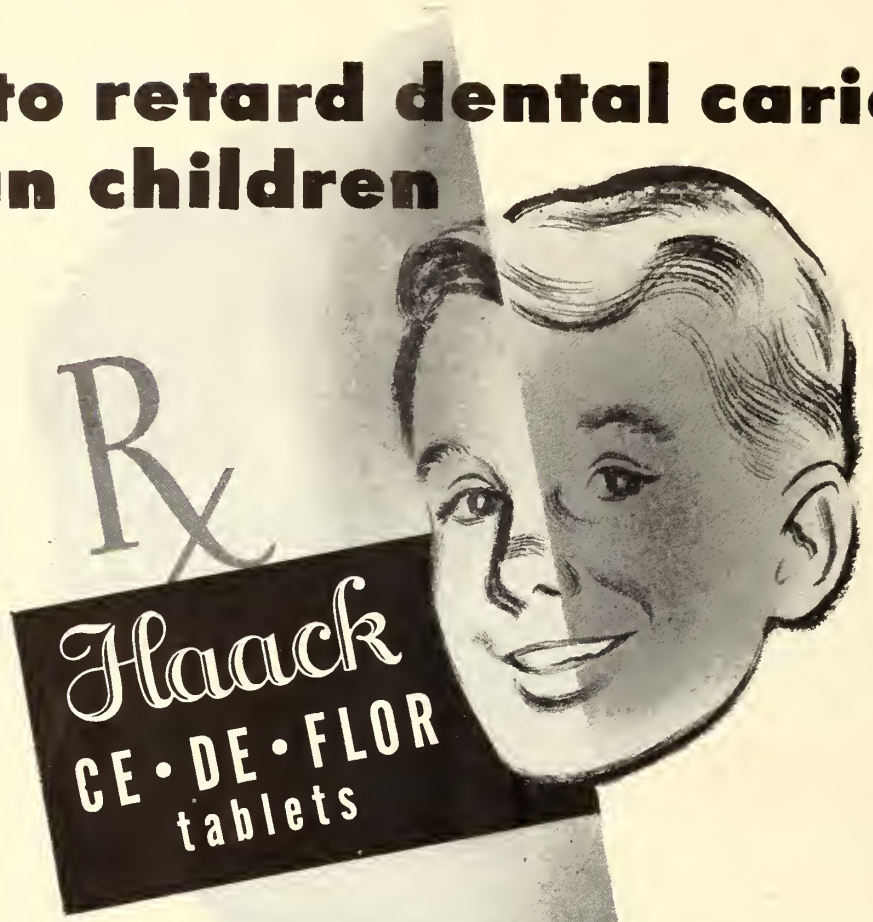
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** Medical World (in press).

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CUTTING NERVES STIMULATING ACIDITY AIDS ULCER PATIENTS

(Continued from Page 20)

secretion of an abnormal amount of gastric juices. These juices are an acid which irritates the ulcer.

The physicians point to three types of patients who are most benefited by this operation: (a) Patients with previous surgery in whom a new outlet to the stomach has been made and in whom renewed ulceration is present. (b) Patients with painful duodenal (the first part of the small intestine leading from the stomach) ulcer coming on during periods of environmental stress, the pain being transiently relieved by antacid preparations and the patient being of intelligent, nonpsychiatric background. "This favorable group," state the authors, "includes many patients who are wage earners, who are taking care of a family or who are busy in a useful position in society." (c) Patients in whom the ulcer has produced hemorrhage or perforation in the past and which can be seen in x-ray films.

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*Vital Statistics—Special Reports: Vol. 25, No. 12, National Office of Vital Statistics, Washington, D. C. (Oct. 15) 1946, p. 206.

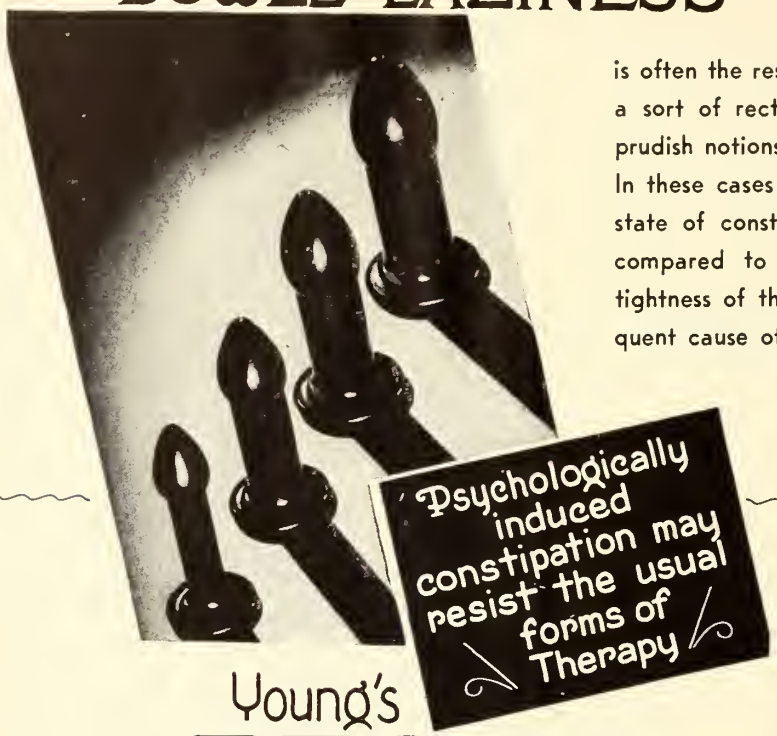
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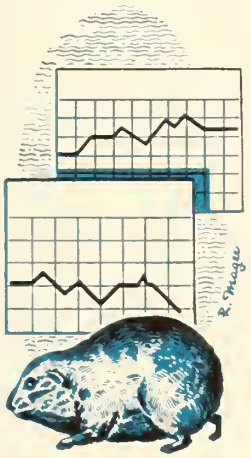
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NEW METHOD TO REDUCE DEATH RATE FROM ACUTE APPENDICITIS

Use of penicillin and sulfadiazine has reduced the death rate, the length of illness and complications from acute appendicitis, according to four Chicago doctors writing in the March 29 issue of *The Journal of the American Medical Association.*

The physicians are William D. Griffin, Joseph Silverstein, Harry G. Hardt, Jr., and Lindon Seed from the Hecktoen Institute, for Medical Reasearch of the Cook County Hospital, Chicago.

The physicians point to a mortality of approximately one per cent for the 108 patients with acute appendicitis treated with the two drugs between March and October, 1946. In the period 1944-45, before these drugs were used in conjunction with the standard treatment, the mortality rate was 4.3 for 592 appendectomy patients.

The average hospital stay also has been reduced as a result of the use of the drugs. In 1935 a patient had to remain in the hospital anywhere from 12.1 to 19.6 days, depending on the complication; in 1944 he had to stay from 11.0 to 19.7 days, whereas in 1946 he stayed between 7.9 and 11.7 days.

The drugs were administered in the following way. Twenty thousand units of penicillin were injected into the muscles before operation followed by 20,000 units of penicillin every three hours for four days after surgery, totaling 660,000 units. The patients also received one gram of sulfadiazine four times a day after the operation. Both drugs were used in order to obtain a greater range of protection against the possible growth of bactria.

The 108 cases were classified as follows: (1) acute appendicitis, producing pus, 62; (2) acute gangrenous appendicitis, 17, and (3) perforated appendicitis, 29. There

(Continued in Back Advertising Section, Page 34)

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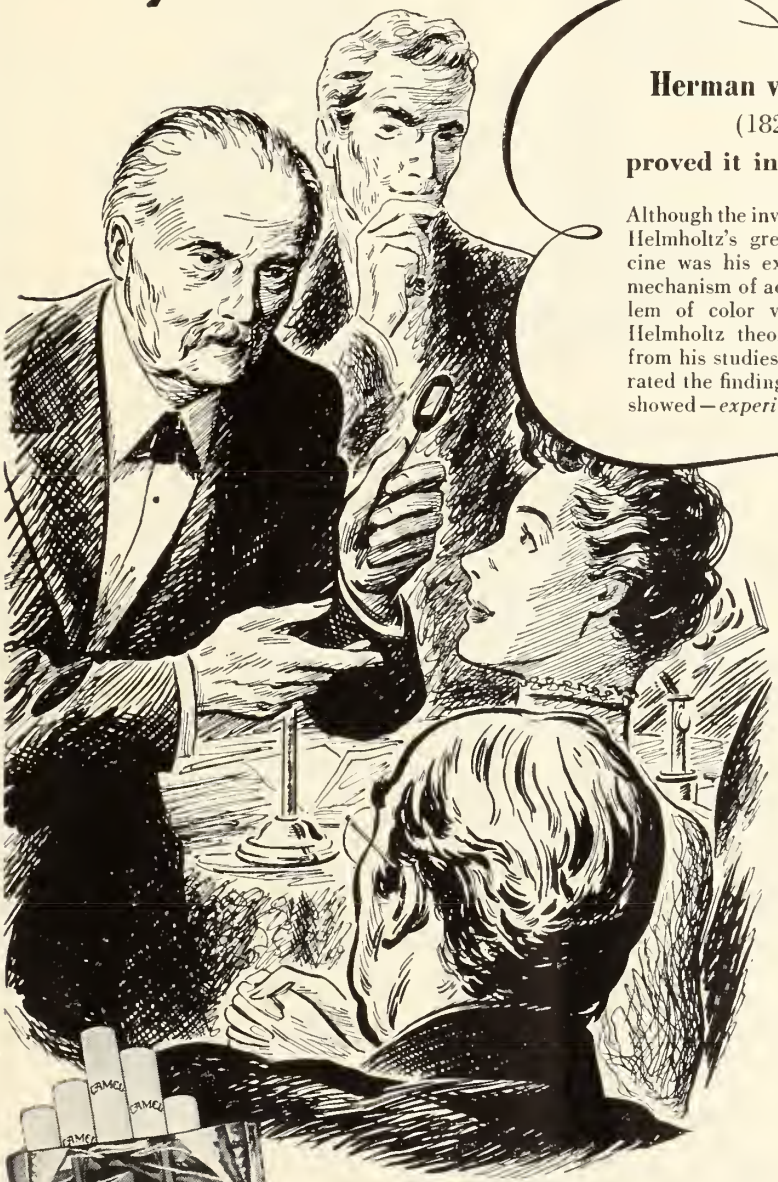
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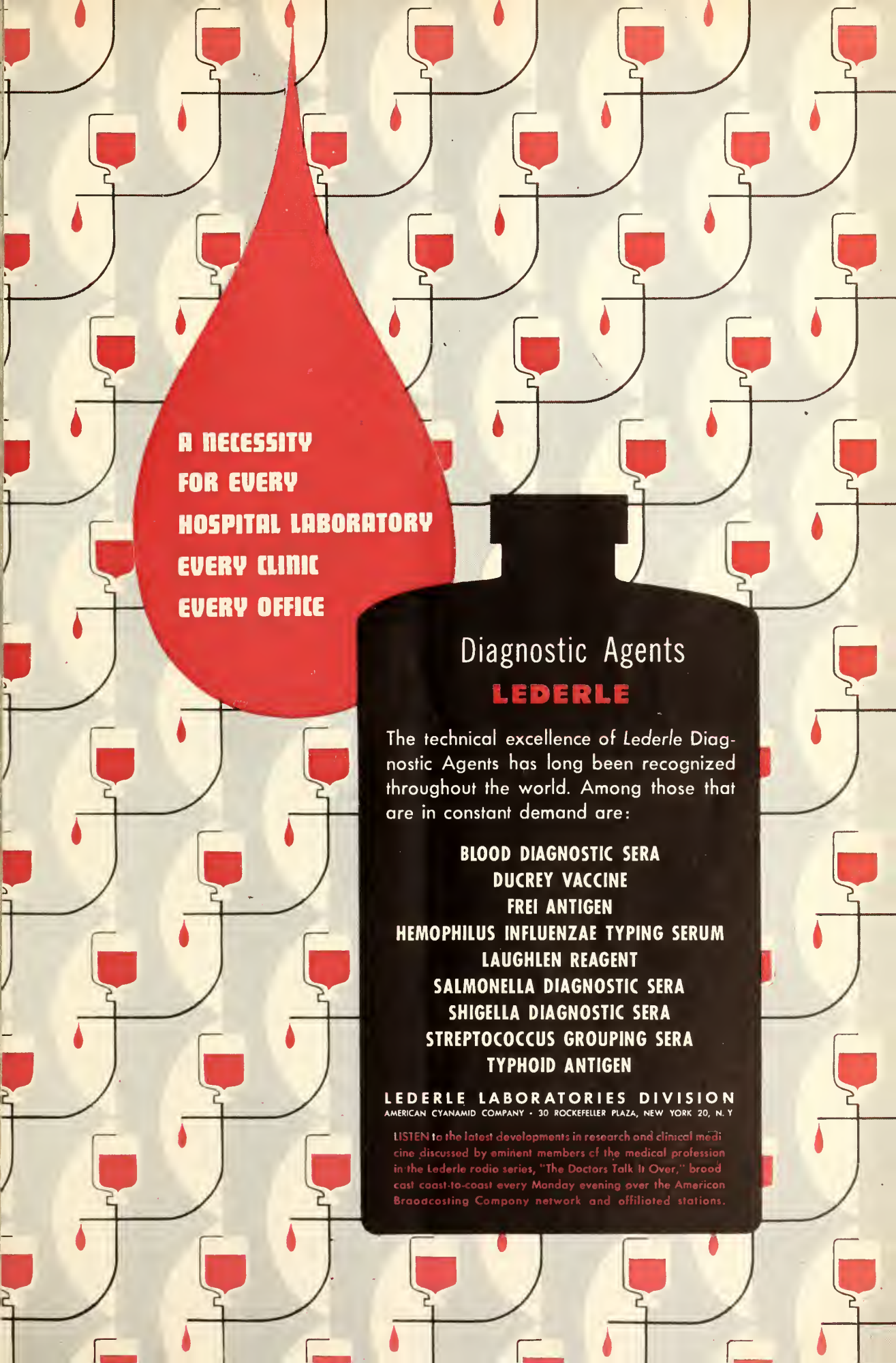


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One of the discouraging aspects of Tick Fever in the past has been the lack of specific therapeutic agents to combat this disease, once it had manifested itself in the human body.

Recently, however, the actual treatment of a case of Rocky Mountain Spotted Fever (Tick Fever) with PABA* was presented as a first clinical report to the Journal of the American Medical Association by Drs. Rose, Duane and Fischel. A portion of the case history follows:

R. B., a white American woman aged 46 was admitted to the Presbyterian Hospital on the 5th of August, 1945, with a diagnosis of Rocky Mountain Spotted Fever. Thirty-six hours after admission therapy was started with para-aminobenzoic acid, (PABA*), 4 gm. initially and then 2 gm. in 25 cc. of chilled 5% sodium bicarbonate every 2 hours, and the following day 25 gm. total was given. Following the first 24 hours of therapy with para-aminobenzoic acid (PABA*) clinical improvement was evident and continuous, with a rapid decline of fever and alleviation of headache, drowsiness and irritability. Her rash quickly subsided and was almost gone at the end of the first week.

On the whole the drug was well tolerated and produced no toxic effects other than perhaps a moderate depression of leukocytes noted during convalescence.

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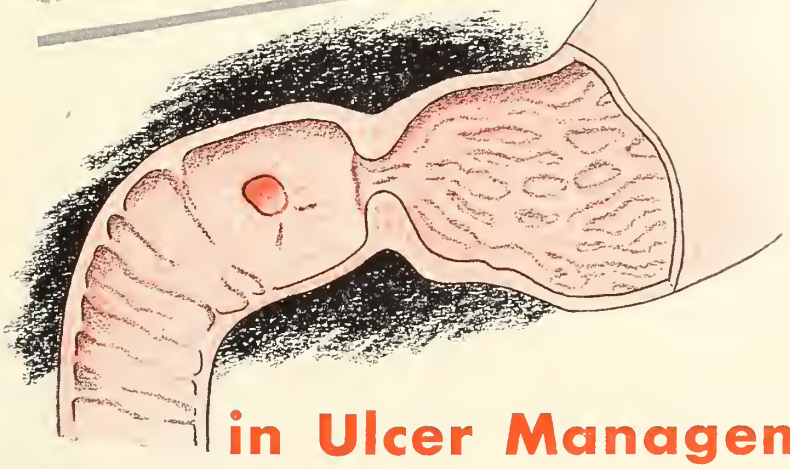
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SEARLE *RESEARCH IN THE SERVICE OF MEDICINE*

NEW METHOD TO REDUCE DEATH RATE FROM ACUTE APPENDICITIS

(Continued from Front Advertising Section, Page 28)

were 77 adults, of whom 55 were men and 22 were women, and 31 children.

Three cases of abdominal abscesses and one case of pelvic abscess were observed in this series. The authors state that "these abscesses subsided spontaneously on the continuation of the routine administration of penicillin and sulfadiazine. The masses became less tender, smaller and then disappeared." The temperature gradually dropped to normal, they report, and the patients were discharged by the 21st day following operation.

"There were nine instances of wound infection," according to the Chicago physicians. "In five of these, drains were inserted at the time of operation. The use of penicillin and sulfadiazine seemed to prevent development of severe infection in the wounds. In the infected wounds there was also an apparent absence of local tissue reaction, as evidenced by a minimal amount of pain, tenderness, heat and swelling of the surrounding tissues."

PHYSICIANS URGED TO WATCH MENTAL FACTORS IN OCULAR DISEASE

David O. Harrington, M.D., of the University of California Medical School, San Francisco, believes that "the precision of diagnostic and therapeutic procedure" available to eye physicians today has "led to a conspicuous neglect of psychic factors in ocular disease."

Writing in the March 8 issue of *The Journal of the American Medical Association*, Dr. Harrington says that

(Continued on Page 38)

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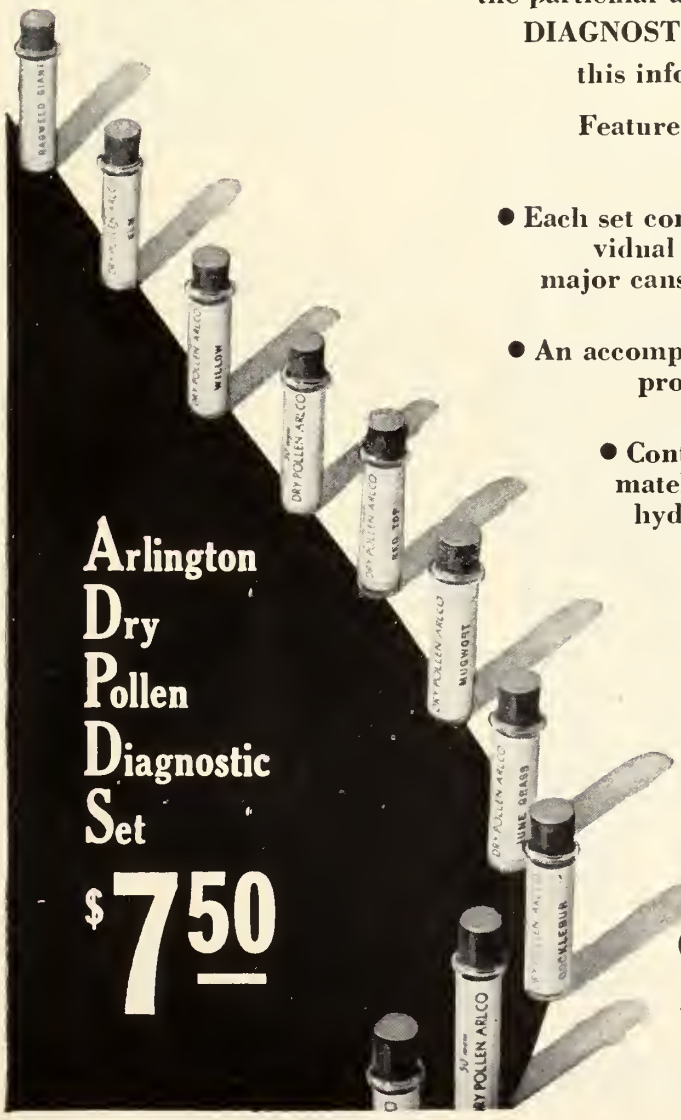
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Some things you should know about "stomach ulcers"

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Though the exact cause of stomach ulcer is still unknown, it has been observed most frequently among people subject to nervous tension and anxiety—about four times as frequently among men as among women.

Fortunately, doctors today have a number of effective methods of treatment at their command.

Improved drugs have been developed to relieve pain and hasten healing. With modern methods of treatment, fewer restrictions are placed on the ulcer patient. Under proper medical supervision, the ulcer patient today can generally lead a nearly normal life. Seldom nowadays do doctors find it necessary to prescribe as rigid a regimen as was formerly indicated.

Your doctor keeps in constant touch with the new developments in ulcer therapy. His own experience and his understanding of the individual patient enable him to choose the treatment best suited to each case.

Stomach ulcers seldom develop without warning. A common symptom is stomach pain several hours after meals, or during the night. But any regularly recurring abdominal pain should be considered a signal that something may be wrong. And your best chance to escape serious trouble and lengthy illness lies in getting medical attention immediately.

SEE YOUR DOCTOR! If you have frequent stomach pains or "indigestion," don't dose yourself. You may get temporary relief from your symptoms, but the medication you use may actually make your ailment worse. See your doctor and let him decide the cause of your trouble. He alone is qualified to diagnose your case and recommend treatment. Ask his help at the first sign of something wrong.

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PHYSICIANS URGED TO WATCH MENTAL FACTORY IN OCULAR DISEASE

(Continued from Page 34)

"the concept of psychosomatic medicine has been enormously advanced by the experience of the second world war. . . .

"Sometimes an ophthalmologist or perhaps a thoracic surgeon attached as a Naval medical officer to a Marine regiment would live in such close contact with his troops that, unless he were of the most rigid mental makeup, he could not help but see them as fellow human beings rather than as a group of potential casualties. A short time spent on a board of censors, for example, is an illuminating medical experience. The flight surgeon in the confined atmosphere of a carrier or at a small advanced flight training school soon learned that he must know his fliers before he could successfully treat their illnesses."

Dr. Harrington lists several ocular disturbances of psychogenic origin, including amaurosis fugax, which, he says, is "one of the commonest and most disturbing symptoms confronting the ophthalmologist." The symptoms vary from a fleeting dimness of vision which lasts only a few seconds to complete visual loss for a number of minutes at a time.

"During the war," Dr. Harrington writes, "this symptom was so frequently encountered in hospitals and dispensaries, both in zones of combat and in areas far removed from them, and was so obviously associated with unpleasant duty, anxiety, frustration and fear that the very term 'blackout' became synonymous with desire for a change of duty. Many of these patients were accused of malingering, and undoubtedly some were guilty of conscious misrepresentation of their troubles, but I feel that in many instances the disturbance was real to the patient, and at times it was genuinely disabling."

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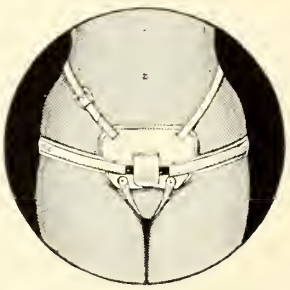
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BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA

By Frederick N. Scatena, M.D.
Secretary-Treasurer

Board Proceedings

The Board of Medical Examiners conducted oral examinations at the Board Office, 515 Van Ness Avenue, San Francisco, May 10 and 11. Many of the applicants appearing have recently been released from one of the branches of our armed forces. The remainder of the applicants were from practically every State in the Union.

Owing to the large number of candidates, the Board availed itself of the authority granted in the Business and Professions Code and enlisted commissioners on examination. The commissioners are selected by the Board from practicing physicians in the locality where the examinations are held. Appointment of commissioners has proven very beneficial and helpful to the Board and has given the commissioners first hand knowledge of the type of men applying for reciprocity.

One of the difficulties encountered by the Board is the securing of suitable quarters for its meetings. The next meeting of the Board will be held at the St. Francis Hotel, San Francisco, July 7 to 10, 1947. Written examinations will be given at this time and hearings held on disciplinary matters as well as petitions for restoration of revoked certificates.

The number of applications received in the office of the Board of Medical Examiners from January 1, 1947, to April 30, 1947, is approximately 30 per cent below the number received for the like period in 1946. This would indicate that the peak of applicants for reciprocity certificates in California has been reached.

The Legislative Committee of the Board has been active in furthering the passage of some 14 bills, which were introduced to simplify and clarify certain sections of the Business and Professions Code relating to the practice of medicine. Eight of the bills have passed the Senate and Assembly, and the remainder are pending either in the Senate or Assembly.

Several new investigators have been added to the Board's staff in the recent months. Mr. Bydie S. Woodruff and Mr. Cecil Mead have been assigned to the Los Angeles area, and Mr. John P. Lennon to the San Francisco area. This makes a total of five investigators employed by the Board at present, and another appointment is expected to be made in the near future.

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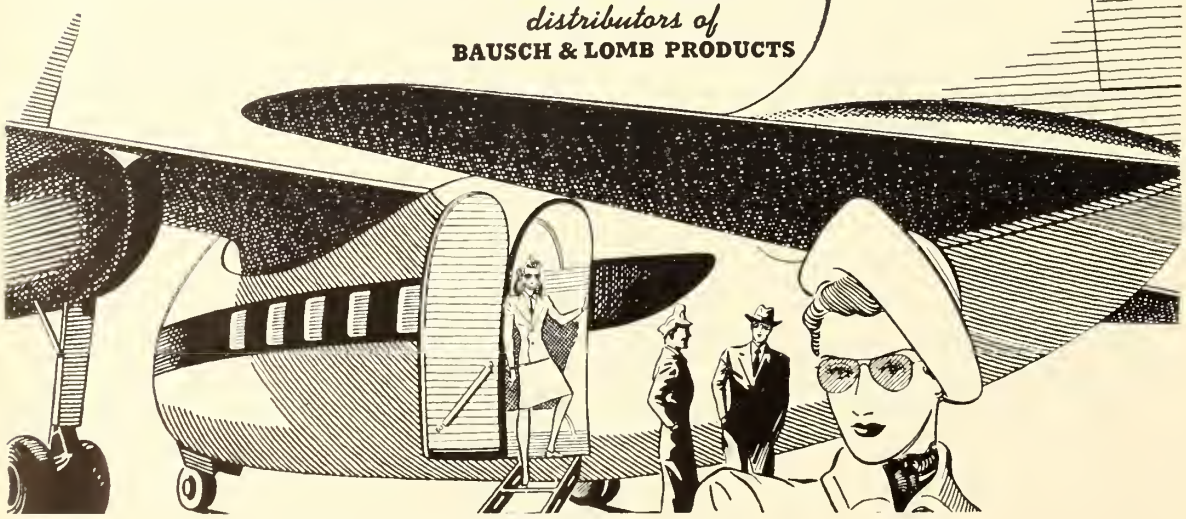
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SHOW EFFECT FOLIC ACID HAS IN PERNICIOUS ANEMIA CASES

The use of folic acid, a part of the vitamin B complex group, as a complete substitute for extract of liver in the treatment of pernicious anemia is not justified, according to two Cleveland physicians.

Writing in the March 15 issue of *The Journal of the American Medical Association*, the physicians—Robert W. Heinle and Arnold D. Welch—report an "explosive" relapse of the nervous system "in a patient on folic acid therapy who had attained and maintained completely normal blood findings. It occurred suddenly, progressed rapidly and responded to liver therapy slowly."

Pernicious anemia is considered a disease of middle and old age because it is usually found in people between 40

(Continued on Page 50)

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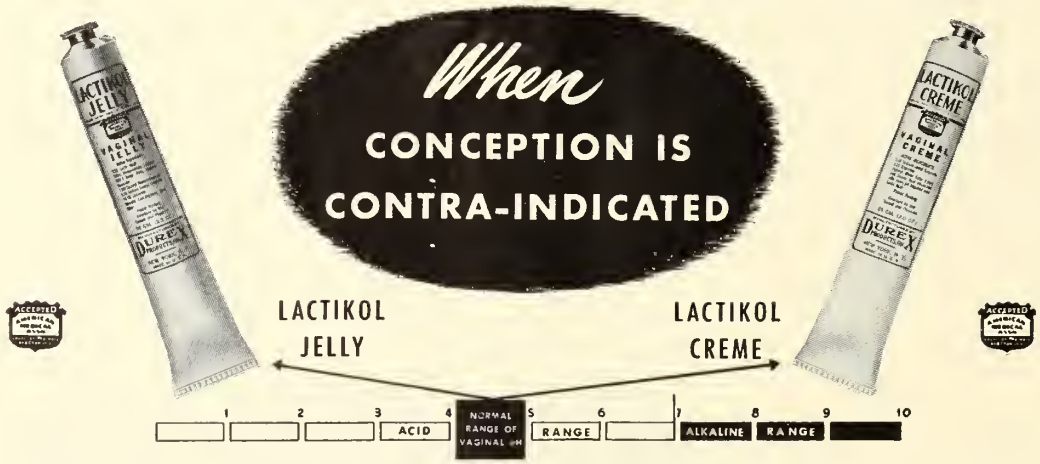
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SHOW EFFECT FOLIC ACID HAS IN PERNICIOUS ANEMIA CASES

(Continued from Page 46)

and 65. It is a relatively common disease in North America. The onset is slow and insidious. Languor, weakness and breathlessness are not marked at first, but later become extreme. The blood picture is much changed, the red corpuscles being greatly reduced in number and very abnormal in shape. Nervous symptoms manifest themselves in numbness and tingling.

The doctors, who are from the departments of Medicine and Pharmacology, Western Reserve University School of Medicine and the Lakeside Hospital, cite the case of a man, 68, treated by them. This patient had been hospitalized because of heart disease and since that time had experienced slight numbness of the hands and inability to distinguish accurately the size of objects placed in his hands. There had been a loss of weight of 30 pounds in the last three months and it was observed that the skin had assumed a yellow color.

A diagnosis of pernicious anemia was made and treatment begun with daily doses of synthetic folic acid administered by mouth. Meanwhile, although the patient's appetite was good, his diet was restricted to liquids because all but four of his teeth had been extracted.

"Within three or four days after the removal of the remaining teeth," state the authors, "there was a sudden pronounced increase in numbness of the hands. In two weeks this had progressed to a point where his arms were completely numb from the elbows downward."

Although the dosage of the vitamin was increased, the numbness spread to the feet. When it was noted that the patient became progressively worse, being numb from the hips downward and from the elbows downward, the folic acid therapy was discontinued and treatment with liver

(Continued on Page 51)

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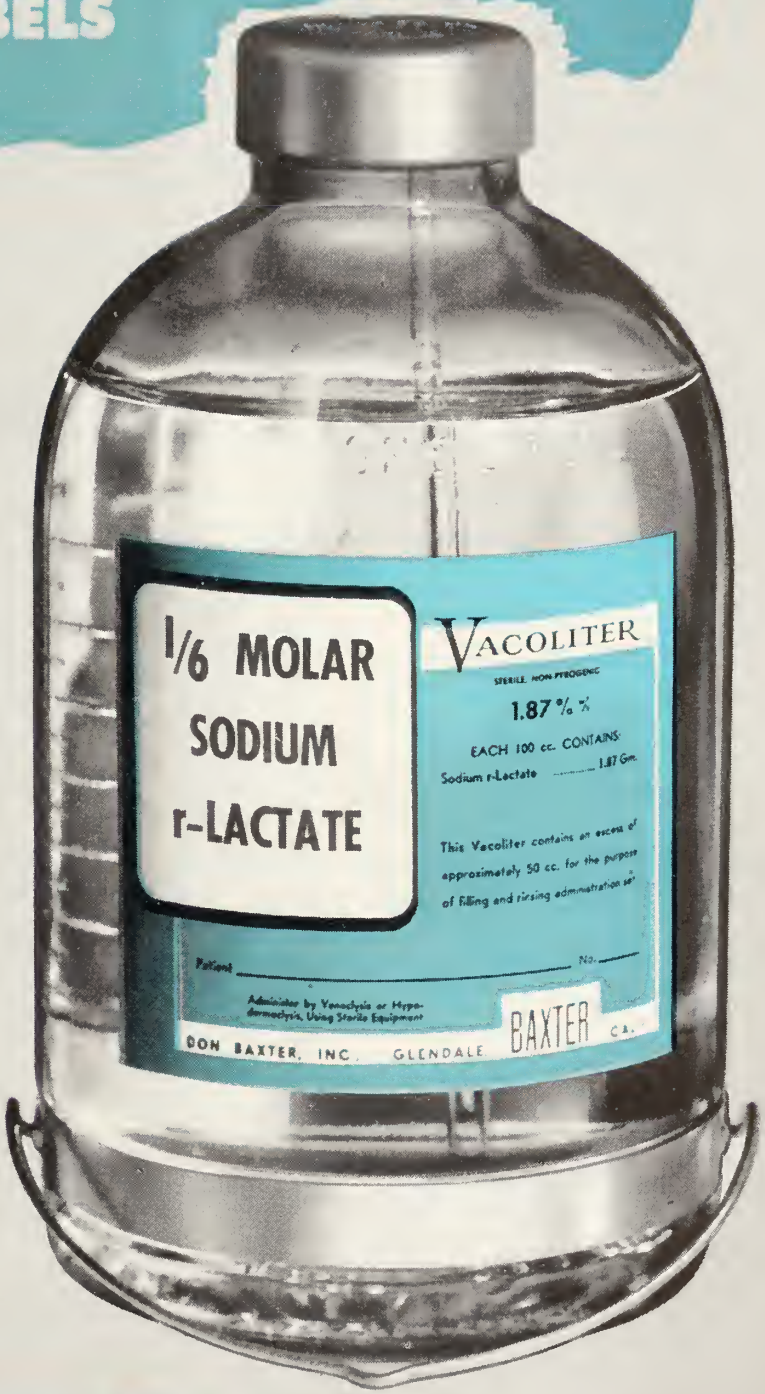
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SHOW EFFECT FOLIC ACID HAS IN PERNICIOUS ANEMIA CASES

(Continued from Page 50)

extract was instituted. Within a month the patient showed improvement.

The authors point out that to date they have "treated and maintained 47 patients with pernicious anemia with synthetic folic acid for periods up to one year. Of this number, only two others in addition to the patient described have exhibited definite neurologic relapse. These relapses were mild and responded readily to therapy with extract of liver." In all three patients the dietary intake was poor.

The authors conclude that "the clinical use of folic acid as a complete substitute for extracts of liver in treating pernicious anemia is not justified. Although more study will be needed to determine whether massive doses of the vitamin can prevent or relieve neurologic relapses, previous experiences with other members of the vitamin B complex render this circumstance unlikely. It is fortunate that the manufacturers of synthetic folic acid have advised that a combination of folic acid and liver extract may prove more effective than either substance alone."

ISSUE POSTAGE STAMP COMMEMORATING A.M.A. CENTENNIAL, JUNE 9

Postmaster General Robert E. Hannegan has approved the issuance of a commemorative postage stamp honoring the doctors of America.

The special stamp will be of the three-cent variety and will be placed on sale on June 9 on the occasion of the 100th anniversary of the founding of the American Medical Association.

"In so honoring the American doctor," Mr. Hannegan said, "we are paying tribute to the men and women of medicine who devote their lives to the cause of humanity."

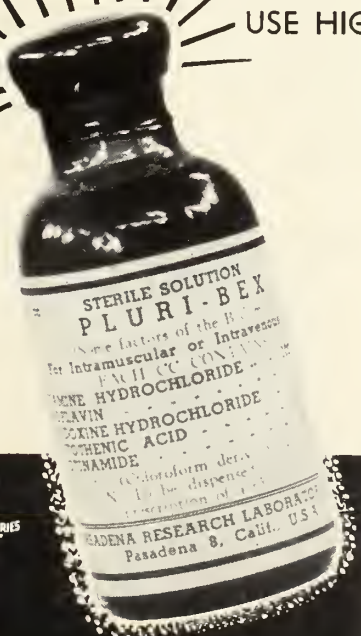


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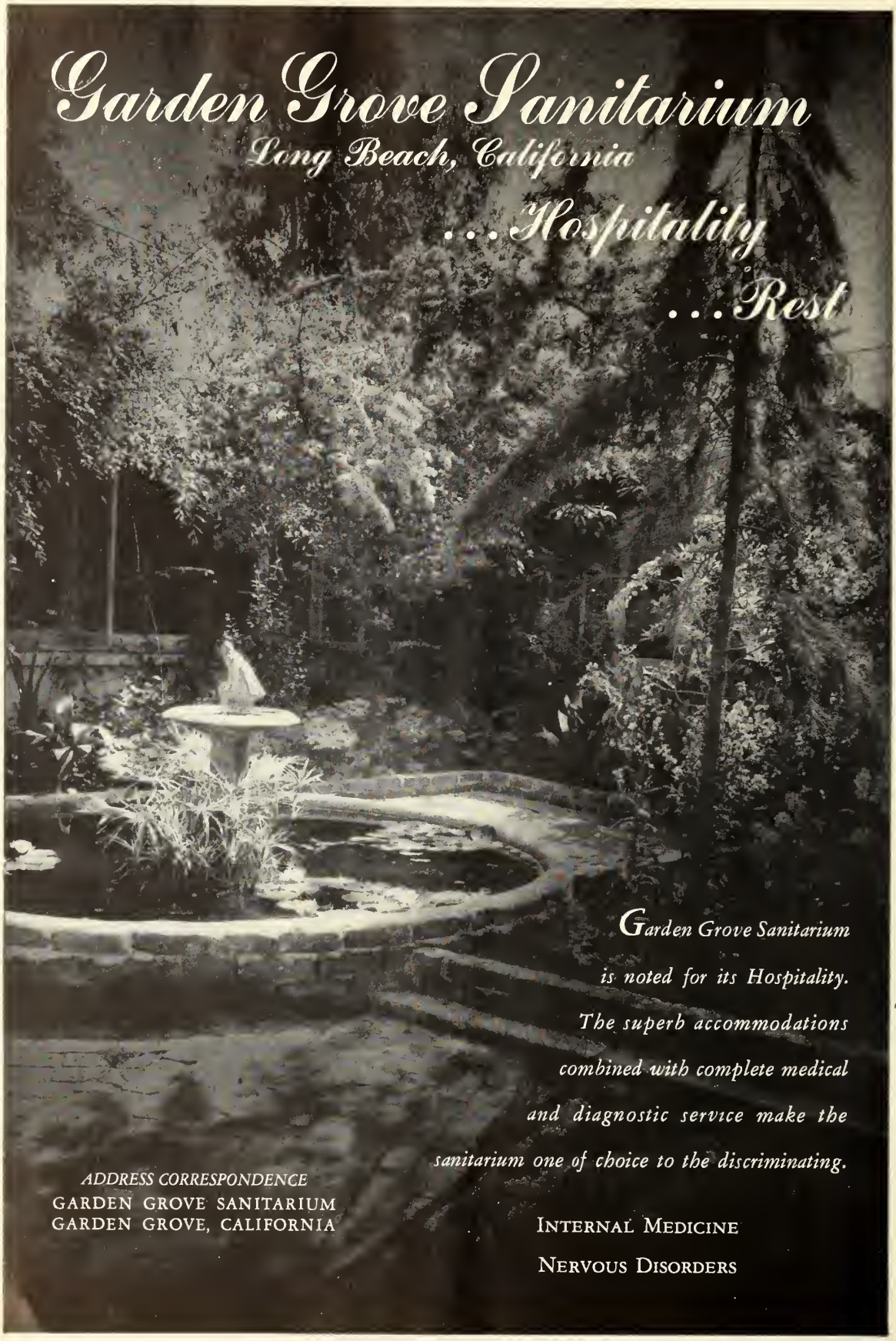
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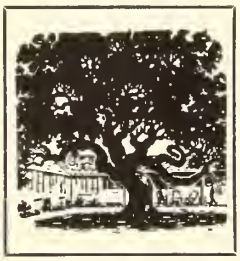
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SOUNDS PLEA TO DIVORCE SENSE FROM NONSENSE IN PSYCHIATRY

Emphasizing that the purpose of psychiatry is to equip the mentally ill for normal living, a psychiatrist writing in the April 5 issue of *The Journal of the American Medical Association* points out the need to distinguish the sense from the nonsense associated with this specialty.

C. C. Burlingame, M.D., president and psychiatrist in chief of the neuropsychiatric institute of the Hartford Retreat, Institute of Living, Hartford, Conn., suggests that treatment should consist essentially of personal tutoring.

"I believe," he states, "that sound physical medicine and psychotherapy in the form of personal tutoring occupy the front ranks in the help which may be offered to the mentally ill."

Giving patients tasks such as making baskets, weaving rugs and polishing the floors are psychiatric nonsense, states the author. These patients become institutionalized and are unable to cope with the problems of normal living. "Psychotherapy in the form of personal tutoring is education in its broadest sense and has evolved in the United States into a technique known as reeducational therapy," according to Dr. Burlingame.

Reeducation is based on the recognition of the needs of man's psychological life, which the author considers under four practical headings: (1) his vocational life; (2) his hobbies; (3) his social and recreational life, and (4) his physical self. Thus, a human being sits psychologically on a four-legged chair, each leg of the chair representing one of these factors.

"If his chair has four solid legs," writes Dr. Burlingame, "he is destined to sit comfortably and securely throughout life. If one leg is too short, or missing, he may well find a reasonable amount of security in his particular chair of life. If two of the legs are defective, he will probably be uncomfortable; and some people seem to have all four legs of different lengths, or some entirely absent, which leaves them precariously balanced, with the result that they fall."

Although little is known about the causes of mental diseases, psychiatry has something tangible to offer in the form of treatment. Just as weak eyes can sometimes be corrected with glasses, and the patient be taught to be a useful member of society, so "one can study psychiatric patients as to their vocational past and their vocational possibilities and train them along vocational lines, so that they can live successfully in line with their vocational capacities and limitations," states Dr. Burlingame, adding: "One can study their avocational past and their avoca-

(Continued on Page 58)



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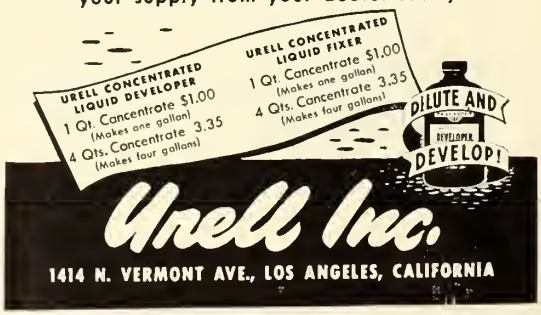
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SOUNDS PLEA TO DIVORCE SENSE FROM NONSENSE IN PSYCHIATRY

(Continued from Page 56)

tional possibilities and help them to develop these potentialities. One can study their social and recreational past and train them along these lines to enable them to live successfully according to their capabilities in a social and recreational way. And one can certainly study their physical selves and aid in their development so that they can live according to their physical capabilities. These things can be done; if one does them, it makes psychiatric sense and not psychiatric nonsense."

The author also labels as nonsense the type of thinking which separates mental disease from physical disease. Two thirds of all the patients admitted to the mental hospital have some physical irregularity which the author believes may be responsible for their psychoneuroses.

The author poses the question: Should a disease be diagnosed as mental or physical when the patient's mind has been affected by such conditions as a brain tumor, syphilis of the brain, a glandular disturbance, nutritional deficiency or long-standing malaria? "I am sure," he says, "that these studies of the human body and the human mind will eventually result in the cessation of talk about mental disease and physical disease as two separate things but will lead to the inclusion of both under the term, disease."

In conclusion, the author points out the need for simple, hard-headed sense in psychiatry, stating: "I am sure that all will concur when I say that it is psychiatric nonsense to claim that present day psychiatry contains the cure for all the mental ills to which the human flesh is heir."

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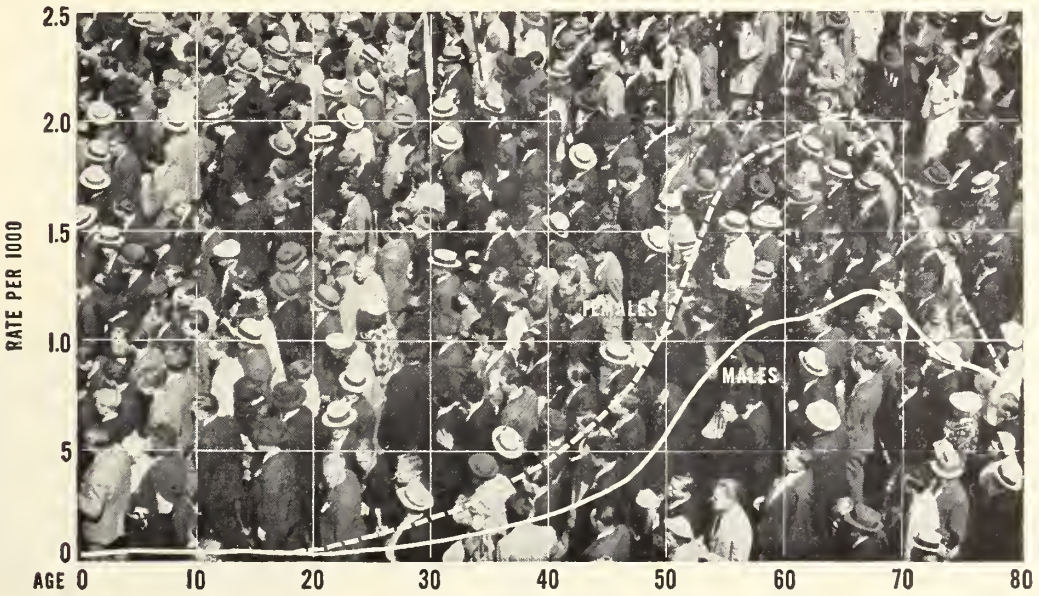
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1. Spiegelman, M., and Marks, H. H.: Am. J. Pub. Health 36:26 (Jan.) 1946. 2. Statistical Bull., Met. Life Ins. Co. 27:6 (Feb.) 1946.

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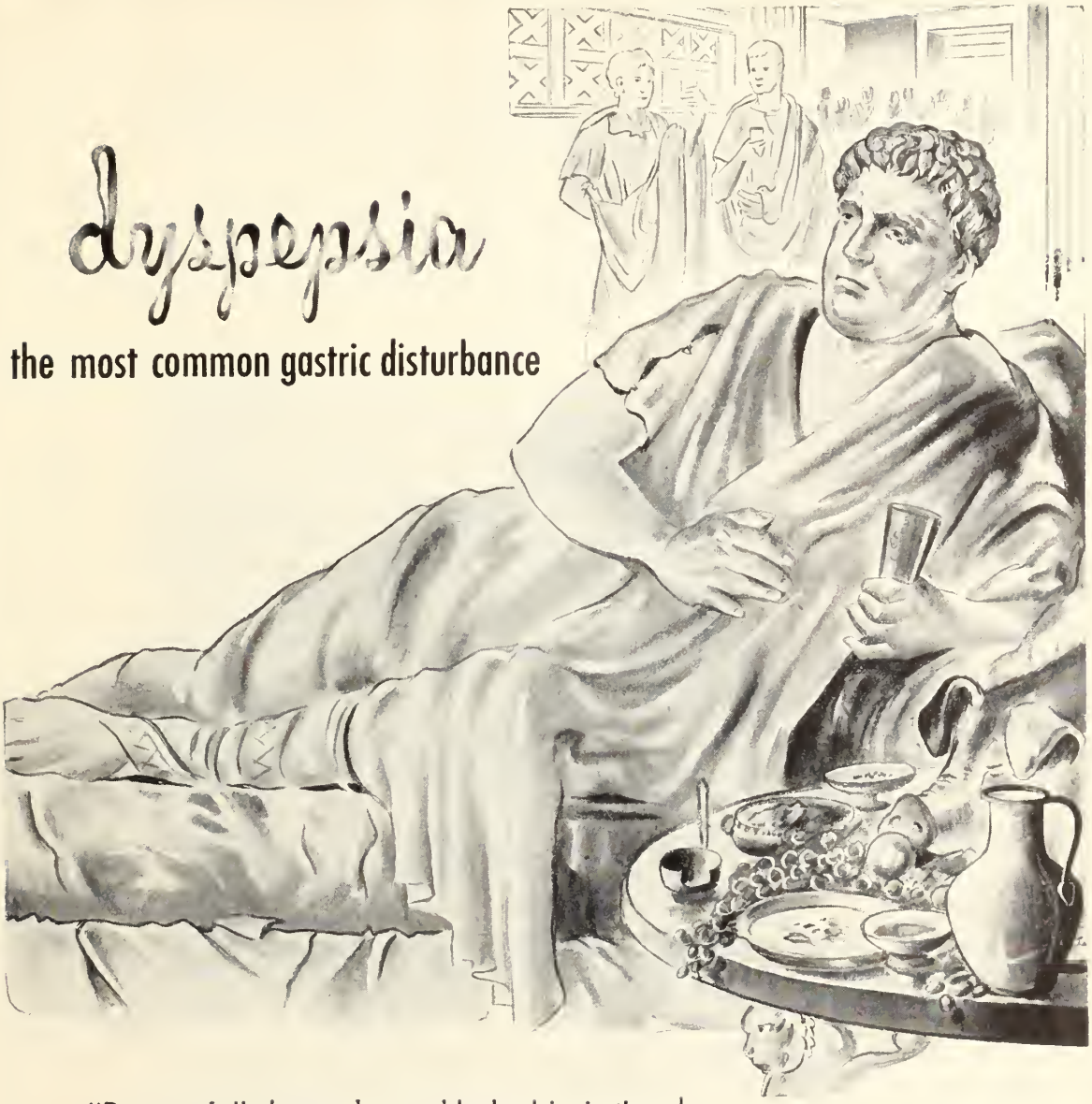
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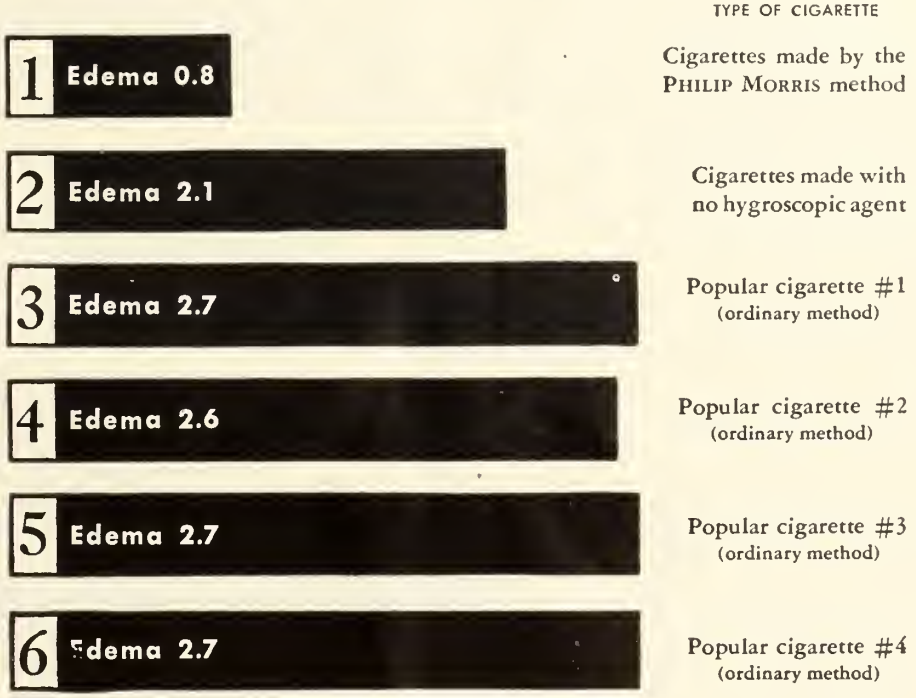
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N. Y. State Journ. Med. 35 No. 11,590* *Laryngoscope 1935, XLV, No. 2, 149-154*

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SIX DOCTORS FIND PENICILLIN MOST EFFECTIVE FOR SCARLET FEVER

In two separate investigations, six physicians found penicillin an effective agent in the treatment of scarlet fever.

Writing in the March 8 issue of *The Journal of the American Medical Association,* Harold L. Hirsh, M.D., Georgine Rotman-Kavka, M.D., Harry F. Dowling, M.D., and Lewis K. Sweet, M.D., who are from the George Washington University School of Medicine, Washington, D. C., report that they used penicillin in the treatment of 86 patients with scarlet fever and found that:

—Penicillin brought a prompt fall in temperature, decreased toxity and practically eliminated the danger of patients carrying the disease and infecting others.

—Penicillin was more effective than scarlet fever antitoxin in the prevention of complications.

—Throat cultures were free of scarlet fever germs within 48 hours after penicillin treatment was started.

—Use of penicillin eliminated the frequent occurrence of serum sickness following the use of antitoxin.

In another *Journal* article, Drs. Archibald L. Hoyne and Rowine Hayes Brown, who are from the Municipal Contagious Disease Hospital of the Chicago Health Department, relate how they used penicillin exclusively on 116 scarlet fever patients during the last 14 months. They found that:

—Penicillin is equally as good a therapeutic agent for scarlet fever as convalescent scarlet fever serum.

—Penicillin is superior to sulfonamide drugs as a therapeutic measure for scarlet fever.

—The big advantage which the penicillin-treated patients possessed was that fewer complications followed its use than occurred with other forms of treatment.

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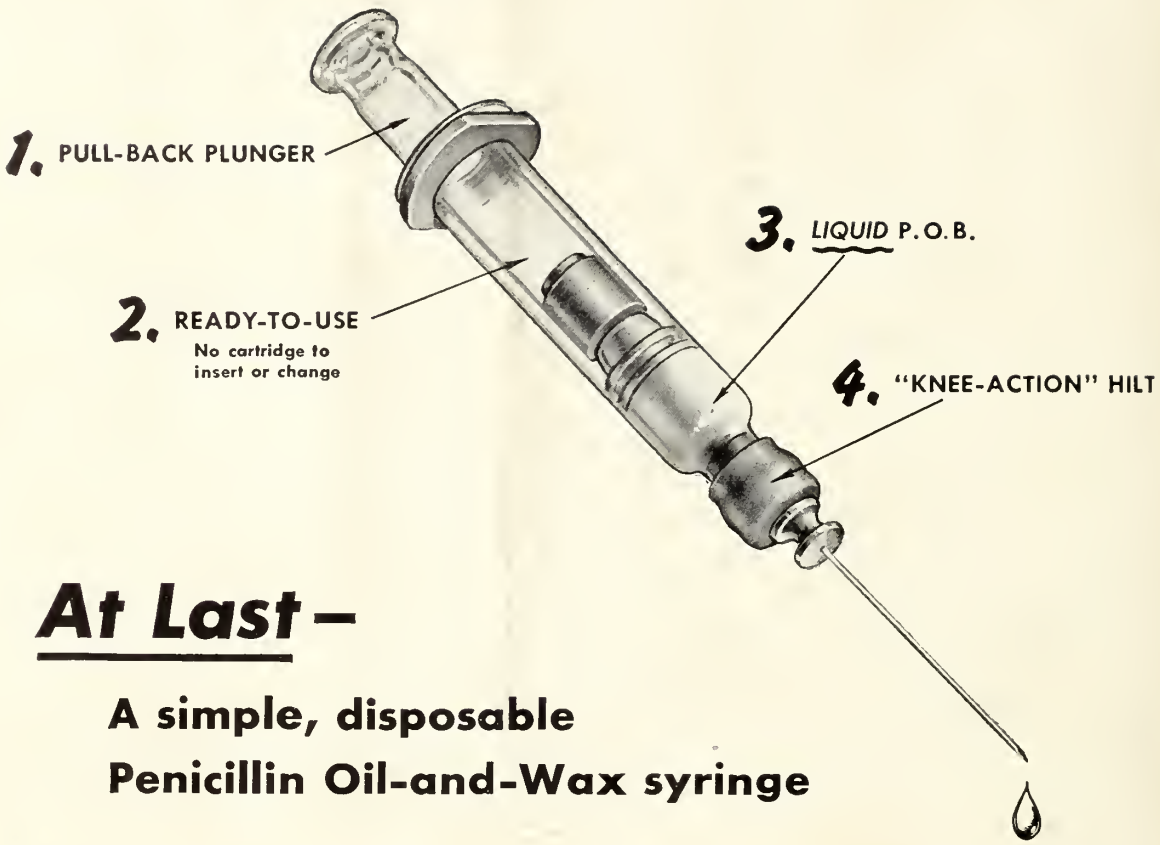
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